

# THE NATION'S SCHOOLS

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Experiments in Artificial Lighting

*10 Page Portfolio*

The Place of the Consultant.. *William C. Reavis*

Legal Aspects of Religious Instruction

*Madaline K. Remmlein*

Preparing for the Summer Lay-Up

*Julius Barbour*

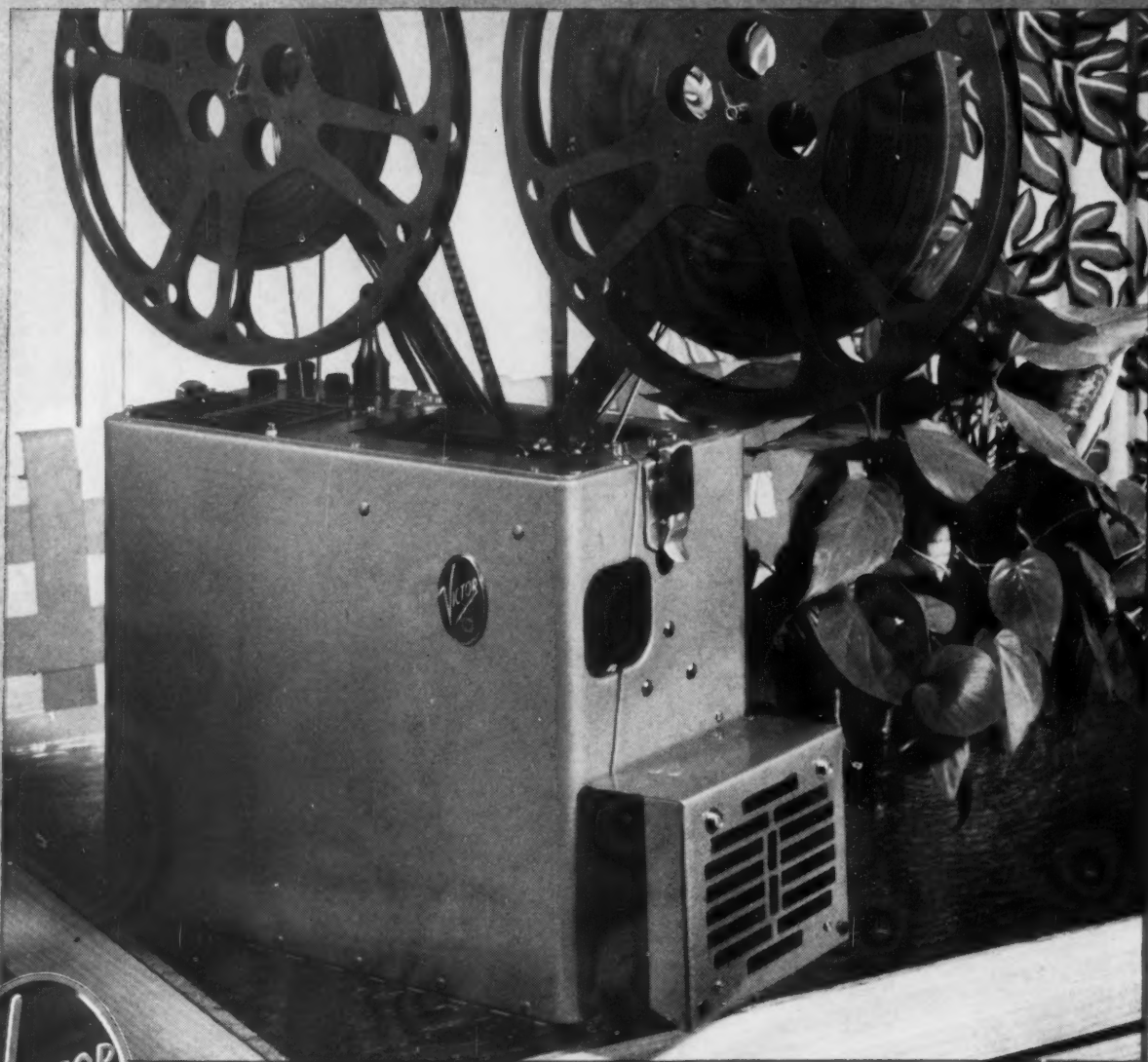
Financing the School Lunch Program

*R. L. Johns*

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*16 Original Articles, 12 Regular Features*

APRIL . . . . . 1948



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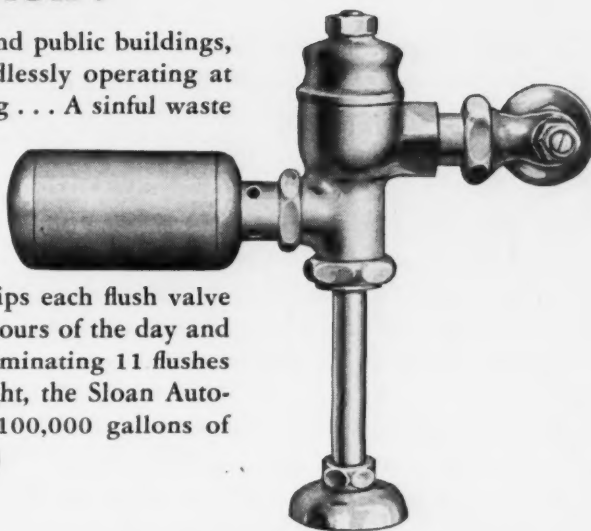


## You Wouldn't Burn the Lights All Night — Why Let the Water Run?

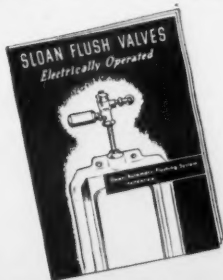
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# AMONG THE AUTHORS



William C. Reavis

WILLIAM C. REAVIS, professor emeritus of education, is chairman of the committee on appointments and field services, department of education, University of Chicago. Although best known for his contributions to school administration, he is also known as a successful farmer in Indiana where he owns one of the Centennial Family Farms. In his present capacity, Prof. Reavis directs the appointment services and school surveys conducted by the department of education, University of Chicago. He received his Ph.B., M.A. and Ph.D. degrees from this institution.

ESTHER M. ANDERSEN is a classroom teacher in the Junior High School at Eau Claire, Wis. Except for four years of teaching in a rural school and in the sixth grade, the rest of her experience has been with grades seven and eight in various Wisconsin communities. Miss Andersen obtained her B.S. at Eau Claire State Teachers College, her Ph.M. at the University of Wisconsin. She manages to have a little leisure time, during which she studies the Swedish language. She is greatly interested in arts and crafts and, as hobbies, collects poetry, Indian pottery and material on early Wisconsin history.



William G. Darley

"Trends in School Lighting," on page 37, by WILLIAM G. DARLEY, is backed by the author's experience as an engineer in the lighting field. Mr. Darley, with a B.S. and an E.E. from Texas A. & M. College, was for fourteen years with the engineering division of the General Electric Company's lamp department, was district engineer for the same department in Los Angeles for two years and in 1947 entered private practice as a seeing specialist and consulting engineer specializing in lighting and seeing, ultraviolet and infra-red applications. Designing new technics of lighting is one of his hobbies. Others are fishing, shooting, making gadgets and giving talks.

FINIS EWING ENGLEMAN is deputy commissioner of education in Connecticut. With a B.S. from State Teachers College, Springfield, Mo., and an M.A. from the University of Missouri, he was early in his career a principal and superintendent in various schools in Missouri. After a year as an instructor at Yale University, he became

associate director of the New Haven Junior College and from 1935 to 1943 was president of New Haven State Teachers College. From 1943 to 1945 he was a commander in the navy. For recreation he likes to read, fish and play golf.



Leon Smaage

LEON SMAAGE is superintendent of the public elementary schools of Des Plaines, Ill. He received his B.A. from Buena Vista College, Storm Lake, Iowa, and his M.A. in education from Northwestern University. He has been a superintendent at Hardy and at Palmer, Iowa; assistant superintendent at Park Ridge, Ill.; superintendent at Brookfield, Ill. He is active in regional and local schoolmen's organizations and is reported to be the "perennial" champion horseshoe pitcher of the West Suburban Superintendents' Association.

JULIUS BARBOUR in his early years was custodian of a church. This gave him an interest in custodial problems, especially the firing of boilers. His article on "Preparing for the Summer Lay-Up" is the second in a series appearing in this magazine. Mr. Barbour is now an instructor at Michigan State College, where he acts as consultant in building maintenance. He was a rural teacher for five years and then joined the school system at Alma, Mich. He has an A.B. from the Central Michigan College of Education and an M.A. from the University of Michigan.



Hal G. Lewis

A successful experiment in changing over from a cafeteria to a lunchroom in the P. K. Yonge Laboratory School at the University of Florida is described by HAL G. LEWIS on page 56. Mr. Lewis was principal of the school from 1944 to 1947. He is now professor of secondary education at the University of Florida. For one year he was state supervisor of adult education with the W.P.A., and for three years he was instructor in education at Delphi College, Garden City, L.I., N.Y. He obtained his A.B. from the University of Georgia and his M.A.E. from the University of Florida.

CORRECTION: Elmer Scott Holbeck was erroneously identified in the March issue as assistant superintendent at Greenwich, Conn. He is assistant superintendent at Passaic, N.J.

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# Roving Reporter

*Mary Had a Little Pet Crow . . . There's Gold in That Old Lot,  
Boys . . . Oldsters Have a Reunion . . . Builds His Own School*



IN THIS case, it wasn't a little lamb but a pet crow that followed its mistress to school one day in Elkhart, Ind. The teacher might have flown off the handle and shooed the bird away as a disturbing influence, but did she? She did not. Instead she made the bird welcome and introduced him to the class. Then she had the boys and girls write poems and compositions about Jimmy, the crow, and draw pictures of him. This led to a new interest in birds in general.



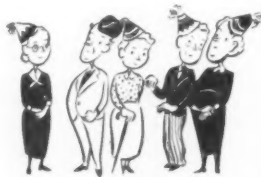
WHEN the bulldozers began digging into the soil on the site of the new music building for the high school at Monterey, Calif., an astonished laborer picked up a \$20 gold piece from the dirt. Word of the find soon got around and the cry of "gold" reverberated through the little city, precipitating a gold rush reminiscent of the one which took place in 1849.

Men, women and children swarmed over the lot with picks, shovels, hoes and rakes. For four days they toiled; lights and bonfires lighted the scene at night. The treasure seekers dug down twelve feet into the ground and the lucky ones came up with jars and cans filled with gold pieces. Others, less fortunate, had to be satisfied with scattered coins. In all, the total haul amounted to about \$6000 in face value but was said to be worth four times that amount. Many of the coins are now collectors' items.

When the school board acquired the

site for the new music building, Carmel Martin, the owner, reserved the right to any treasure that might be discovered on the property since his uncle on his death bed had divulged to his nephew that he had buried gold there. The Martin family had thereafter made a search for the treasure but had been unable to find it. When the gold rush was on, Mr. Martin decided he would make no claim to the gold. Finders could be keepers.

The richest find was made by Mike Maiorana, son of an Italian fisherman, who found a can containing thirty-seven \$20 gold pieces. He was promptly mobbed and only the intervention of the bulldozer operator enabled him to retain his find. Mike reluctantly shared his loot with workmen and others who demanded a share, but arrived home with twenty of the gold pieces.



PINK and blue paper caps sat jauntily on the gray heads of sixteen members of the class of 1903 at Public School 84, Brooklyn, N.Y., when they held a reunion recently at the Biltmore Hotel in New York City. Forty-five years bring drastic changes but somehow the fifteen "boys" and one "girl" managed to recognize one another. Wives were introduced and pictures of children and grandchildren were passed around.

An inventory of the achievements of the members of the class, many of whose parents had come to this country as immigrants, had revealed that

not one among the thirty-three boys in the class was a failure in later life. Among the occupations represented at the gathering was a justice of the municipal court, a law assistant in the surrogate court, the manager of an insurance company, a policeman, an assistant corporation counsel, a bank president, an independent meat packer, a lawyer, a stock broker, a publisher.

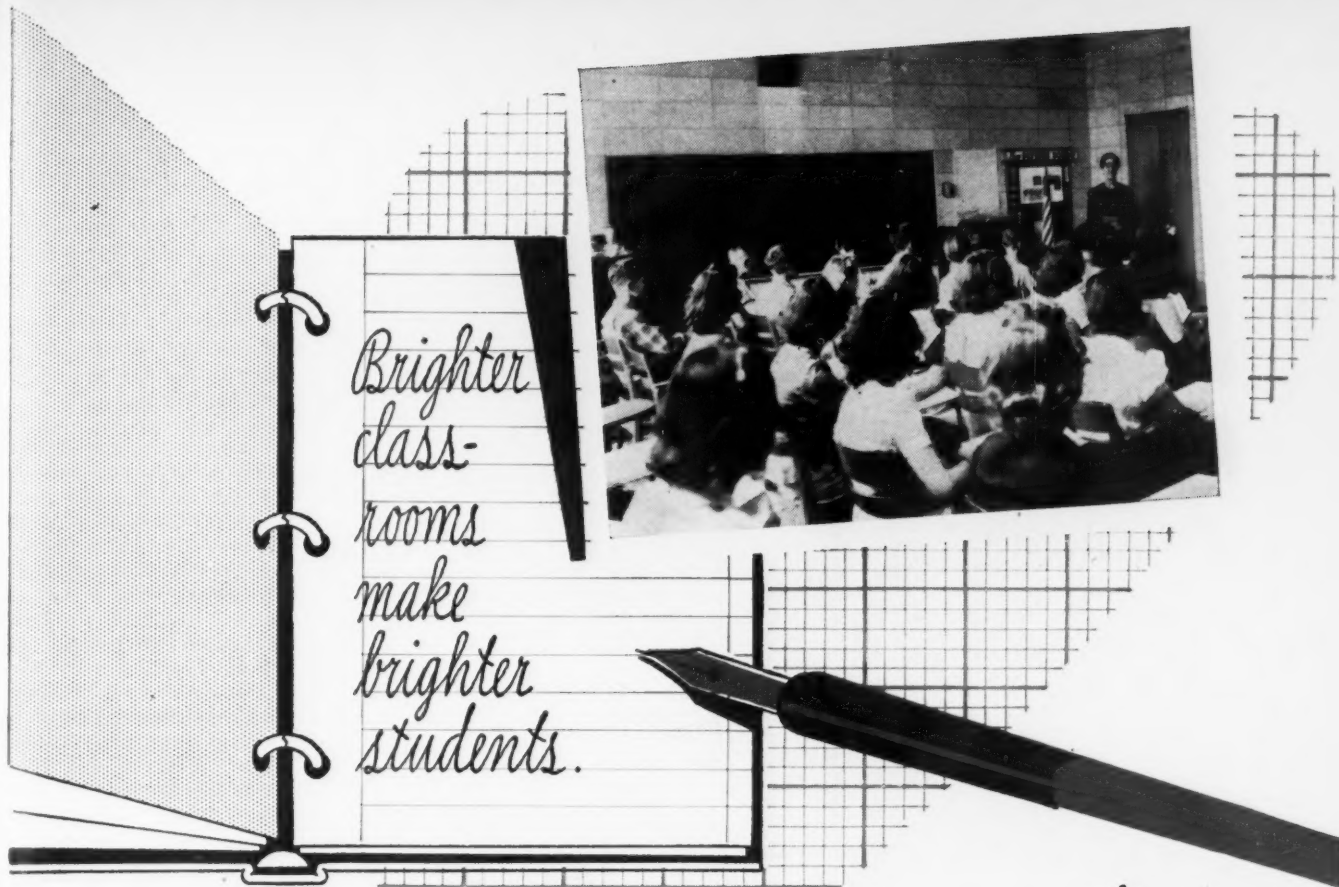


WHAT do you do when your school begins to bulge at the seams? If you have the money, you set about building a new school or a new addition.

The school board at Arlington, Iowa, was faced with this problem when several small rural schools nearby began to close and the pupils started pouring into the Arlington school. The board had the money, amounting to \$85,000, for an addition, but it couldn't find a contractor because they were all too busy.

It was then that Supt. Burton North, who has a master's degree in vocational education, stepped into the breach. He decided to undertake the building job himself. That was last July. With the help of students and heavy excavating machinery which he rented, the ground was prepared. By the time the snow began to fly, Supt. North with occasional assistance had purchased materials, poured footings, erected the steel, set 25,000 building tiles in place and the two-story addition was nearly half finished. He expects to complete it next summer—a real administrator.





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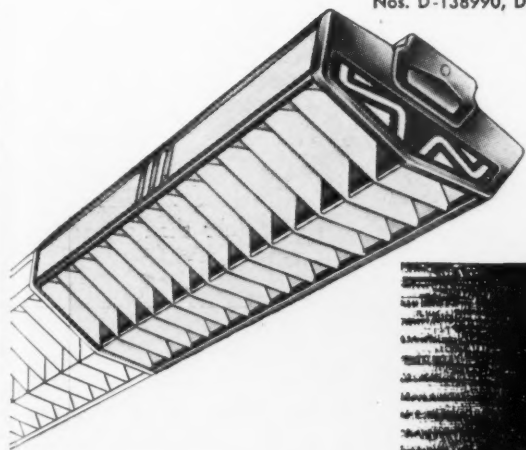
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# QUESTIONS AND ANSWERS

## Number of Salary Payments

Is there any uniformity throughout the country in the number of payments which teachers receive per year? If so, how many times are they generally paid?—J.A.O., N.H.

"Teachers are paid monthly or, less frequently, semimonthly. In about two-fifths of the cities they receive their salaries over a period of twelve months. In nearly all of the remainder of the cities they are paid during a period of ten months or nine months. Their period of service and earning in rural schools varies, but most commonly is nine or eight months." These data are quoted from "Teaching as a Profession" by Benjamin W. Frazier, page 15, U.S. Office of Education Pamphlet No. 95 (out of print).—A.H.R.

## Don't Shake the Mop

What do you consider the best method of handling dry mops? We have found shaking them unsatisfactory and have also found any containers now on the market rather unsatisfactory.—F.J.B., Vt.

My conception of the purpose of a dry mop may differ from yours. Dry mops are used for mopping waxed floors, when the polishing machine is not indicated, or clean surfaces. In these cases little or no shaking is required and, as they become soiled, the mop heads can be removed and washed. The purpose of the dry mop is defeated if it has to be shaken when in use.—JEWELL W. THRASHER.

## Salaries as Current Expense

What proportion of current school expenses are teachers' salaries?—J.A.O., N.H.

In 1944-45 (the latest for which national statistics are available), teachers' salaries represented 60.48 per cent of total school expenditures. Statistical Circular SRS-11.0-27 of the U.S. Office of Education, "Statis-

tics of State School Systems, 1944-45," reports a total of \$1,595,933,485 spent for instructional staff salaries, as compared with the grand total of \$2,638,665,908 for all school expenditures.

The U.S. Office of Education also refers to its annotated Bibliography No. 75 on "School Finance" for various articles and bulletins on salaries and salary schedules.—A.H.R.

## Restricted Sales Agreements

Is it lawful for certain concerns which sell duplicating machines to stipulate that they will not provide free service unless we use their paper and other products exclusively in these machines?—N.B.B., Mass.

Several factors apparently are involved here, one hinging on the interpretation of the word "free" and the other depending upon the intent of the free-service limitation.

In response to inquiries from better business bureaus and various industries, the Federal Trade Commission early this year ruled that if the "free" offer is not in effect a gift, it is in violation of the Federal Trade Commission Act.

The interpretation, released to newspapers on January 30, 1948, reads:

"The use of the word 'free,' or words of similar import, in advertising to designate or describe merchandise sold or distributed in interstate commerce, that is not in truth and in fact a gift or gratuity or is not given to the recipient thereof without requiring the purchase of other merchandise or requiring the performance of some service inuring directly or indirectly to the benefit of the advertiser, seller or distributor, is considered by the commission to be a violation of the Federal Trade Commission Act."

Other considerations arise. Does the practice in question stifle competition or promote monopoly? Is the concern engaged in interstate commerce?

We are advised that as a general principle of law, a concern has the

right to choose its own customers and to refuse to sell to another for any reason sufficient to itself. But this decision must be based on its own independent judgment. If it is due to a combination, understanding or agreement with, or on the part of others, the action would be termed an unlawful restraint of trade or interstate commerce.

If the concern is engaged in interstate commerce, it would be subject to the Clayton Anti-Trust Act. In substance, that law provides that:

"It shall be unlawful . . . to make a sale . . . of goods . . . or fix a price charged therefor, or discount from, . . . or rebate upon, such price, on the condition . . . that the . . . purchaser . . . shall not use . . . goods . . . of a competitor . . . where . . . such condition . . . may be to substantially lessen competition or tend to create a monopoly."

One legal authority is of the opinion that under these provisions, the practice of offering free service with a machine only if the seller's products are used, might be interpreted as a rebate. But another condition arises: If the duplicating machines are sold without limitation, and if the seller will service them—for payment, then there is a question whether the free servicing would be considered a rebate.

And if it were a rebate, it would be necessary to prove that there is a tendency to lessen competition or create a monopoly.

The free-servicing limitation would be legal, this authority believes, if the seller can establish that the limitation is not a rebate, but rather was imposed because of higher cost of servicing machines when other than the seller's products were used.

Obviously, there are many "ifs" and "ands." The Federal Trade Commission can advise more completely if the facts are submitted in detail. Inquiries should be addressed to its Office of Legal Investigation, Washington 25, D.C.—M.T.

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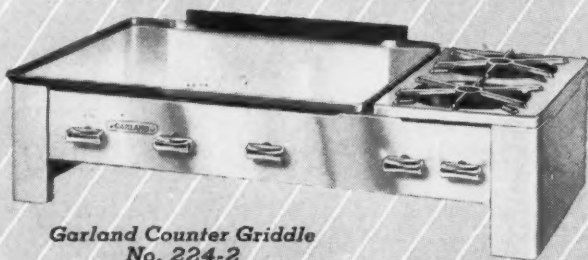
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## Attributes of a Good Adviser

What are some of the qualifications which a student adviser should have? — E.L.G., Mo.

I feel that desirable qualifications for a person holding this position are: (1) a normal outlook on life; (2) a genuine liking for the work and for young people; (3) an objectivity of attitude; (4) ability to interpret test scores; (5) ability to judge probable deficiencies of the student; (6) power to persuade the student that he (the student) *wants* to overcome these deficiencies; (7) accurate knowledge of degree requirements.—ROWLAND HAYNES.

## Reconditioning Oiled Floors

How can old oil-soaked classroom floors be properly reconditioned? — B.E.F., N.J.

Old oiled-soaked floors can be justly criticized. To remove the oil and to provide a smooth surface require a good sanding job. And a good sanding job that does not show sandpaper marks when the seal coat is applied requires the use of 00 sandpaper for the final cut.

After the sanded floor has been vacuumed, apply a good grade of penetrating sealer. Several products on the market have been especially prepared for this purpose, or any reputable paint and varnish manufacturer will, upon request, furnish a good grade of floor varnish which, when properly thinned, will give a satisfactory finish. For thinning, use mineral spirits, which is cheaper than turpentine and just as good. To find how much to thin, ask the manufacturer.

The varnish sealer may be applied with brush or mop. The excess should be wiped off and, when dry, the surface should be steel-wooled and then cleaned with a vacuum cleaner. A second coat should be applied, steel-wooled and vacuumed; if the floors are pine, a third coat may be needed to bind the surface fibers of the wood.

The idea is to seal the surface to prevent ingress of dirt and to provide a smooth surface to clean but not to put on a heavy surface film which will wear through and cannot be patched. The final finish should be a good grade of wax in any of the forms of paste, spirit dispersed or water emulsion. Paste wax gives a more lasting and beautiful finish but takes more work.—O. L. ADAMS.



## Teachers Look to *Leader* for finer Schoolroom Lighting

●America's classrooms are in urgent need of seven times their present light. Proper lighting is vitally necessary to ease students' mind-tiring eye strains . . . sharpen their mental alertness and allow more rapid learning. Keen mental alertness reduces the teacher's load . . . making their job easier. The Leader "SCHOOLMASTER" has been designed especially for classroom use . . . to give more light where it is needed.

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**But does your school board know?**

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*Al Esper*

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"One of our 6 new Ford buses replaced a Ford bus used 11 years on a long, hard route. We prefer Fords to any others for low operating cost, dependableness and real satisfaction."

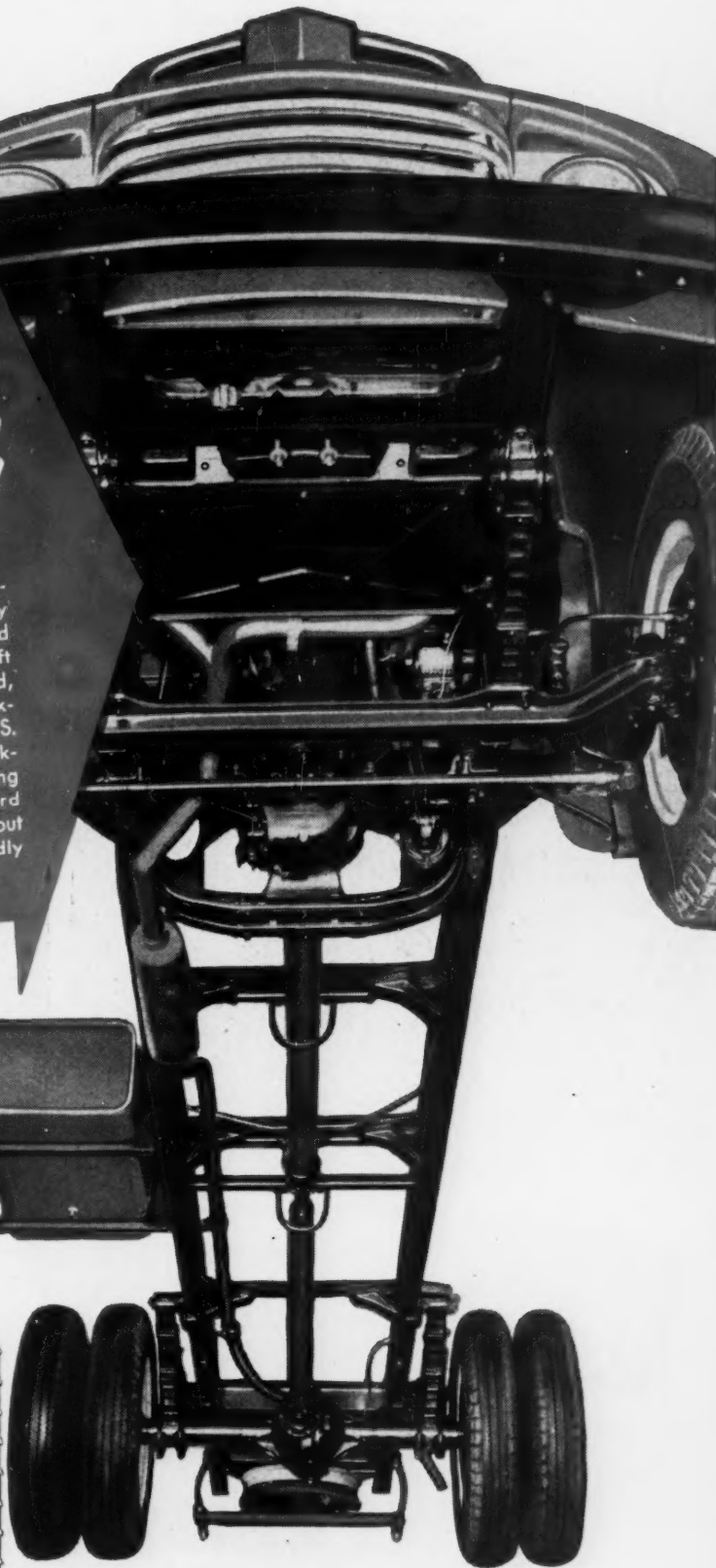
—W. O. Cain, Supt., Sumter County, S. C.

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"We have used Fords for transporting our pupils for several years . . . very low maintenance cost . . . economical operation . . . thorough satisfaction."

—J. L. Goins, Supt., Cheyenne Public Schools  
Cheyenne, Wyo.

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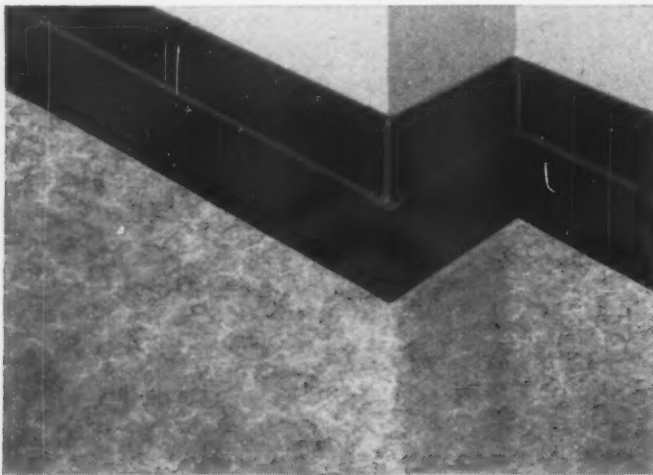
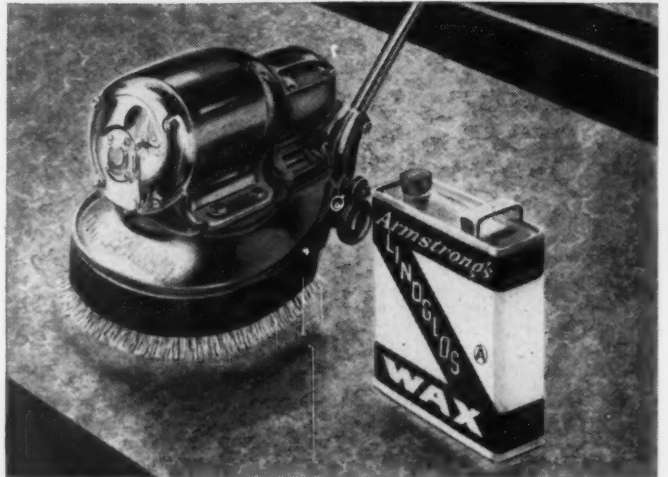
\*Webster's Dictionary definition of word "Bonus"—"Something given in addition to what is usual or strictly due."

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Keeping school floors looking clean and attractive is one of the maintenance department's greatest problems. Armstrong's Linoleum Floors will help give your school a clean, bright appearance. They are easy to maintain. A daily sweeping and a routine washing and waxing are all the care they need. Tracked-in dirt is easily removed from linoleum's smooth surface.

Armstrong's Linoleum is tough, resilient, and durable. It will take the wear and tear of heavy school traffic. But, like other quality products, it looks its best and wears longest with proper maintenance.

The pictures on this page show the easy steps that should be followed in caring for your linoleum floors.



**FREE BOOKLET**—"Floor Designs for Better Business" is fully illustrated and packed with practical suggestions on various flooring and maintenance problems. It can help you with the planning and maintenance of your floors. Write Armstrong Cork Company, Floor Division, 3704 State St., Lancaster, Pa.

**A DAILY SWEEPING** keeps your Armstrong's Linoleum Floor clean and attractive. Where dust is a problem, Armstrong's Sweeping Compound is recommended. Wash when necessary using a warm water solution of Armstrong's Liquid Cleaner.

**WAX AND POLISH** with Armstrong's Linogloss® Wax. When waxing, the thinner the coat, the better. Thick wax tends to form a soft film which retains dirt. Use two thin coats for a longer lasting surface.

**REMOVE STAINS** from Armstrong's Linoleum by light buffing with steel wool. No. 0 grade is recommended. A steel wool pad in a buffing machine is also recommended for removing streaked or smeared wax preparatory to rewaxing the floors.

**COVE BASE** further simplifies cleaning by eliminating dirt collecting corners and crevices. It is formed by flashing or curving the linoleum floor several inches up the walls and permanent fixtures.

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# NEW SAFETY FOR THEM...



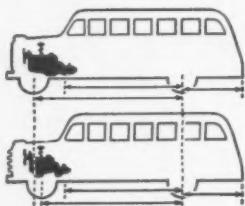
## New and Exclusive Features Provide Much Easier Handling . . . Safer Weight Distribution

By moving the front axle back, and the engine forward, weight distribution is greatly improved. Carrying standard, full-size bodies, wheelbases are approximately 8 inches shorter, permitting more load to be carried on the front axle and wheels—so tires grip firmly for proper steering and braking. New

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In choosing school buses, *yours* is an important responsibility. You want—above all other things—SAFETY, ECONOMY and DEPENDABILITY! The new Dodge school bus chassis are engineered and "Job-Rated" to provide maximum safety and economy. There are no better brakes than Dodge "equal-pressure" hydraulic brakes. There is no better economy than that provided by the *right* "Job-Rated" engine. And of course—for more than 30 years—DODGE and DEPENDABILITY have meant one and the same thing. Let your Dodge dealer explain the many advantages Dodge "Job-Rated" chassis will bring to your school bus operation.

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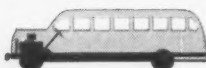
#### MODEL FS-152

3 models—range from 10,650 to 11,750 lbs. G.V.W.  
For 30 to 36 pupils.



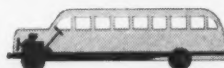
#### MODEL FS-170

2 models—11,900 and 12,900 lbs. G.V.W. For 36 to 42 pupils.



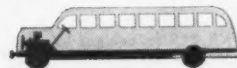
#### MODEL FS-192

3 models—range from 14,300 to 15,000 lbs. G.V.W.  
For 48 pupils.



#### MODEL JS-212

3 models—range from 15,775 to 17,000 lbs. G.V.W.  
For 54 pupils.



#### MODEL RS-229

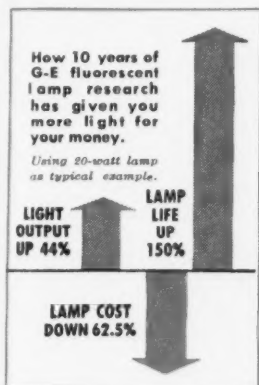
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**DODGE "Job-Rated" SCHOOL BUS CHASSIS**

# G-E Fluorescent — the new light for schools —is ten years old April 21

ONLY 10 short years ago, the first fluorescent lamps were placed on public sale by General Electric. Since then G-E fluorescent lamps have revolutionized lighting in schools, stores, offices, factories, homes—and have made modern illumination an even greater aid to visual education.

From the first, G-E Lamp scientists have led in fluorescent development, working ceaselessly to bring the cost of fluorescent lamps lower and lower—to raise efficiency higher and higher. The chart shows what's happened.



This amazingly rapid improvement in fluorescent is typical of the persistent effort of G-E Lamp research to give you *more* light and *better* light for your lamp dollar. It is only one of the many reasons why it pays to insist on "G-E"

when you buy lamps for any purpose. General Electric lamps are constantly improved by research to *Stay Brighter Longer!*

## G-E LAMPS

# GENERAL ELECTRIC

*Whatever lamps you need*



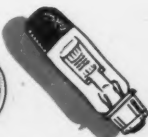
FLUORESCENT



FILAMENT

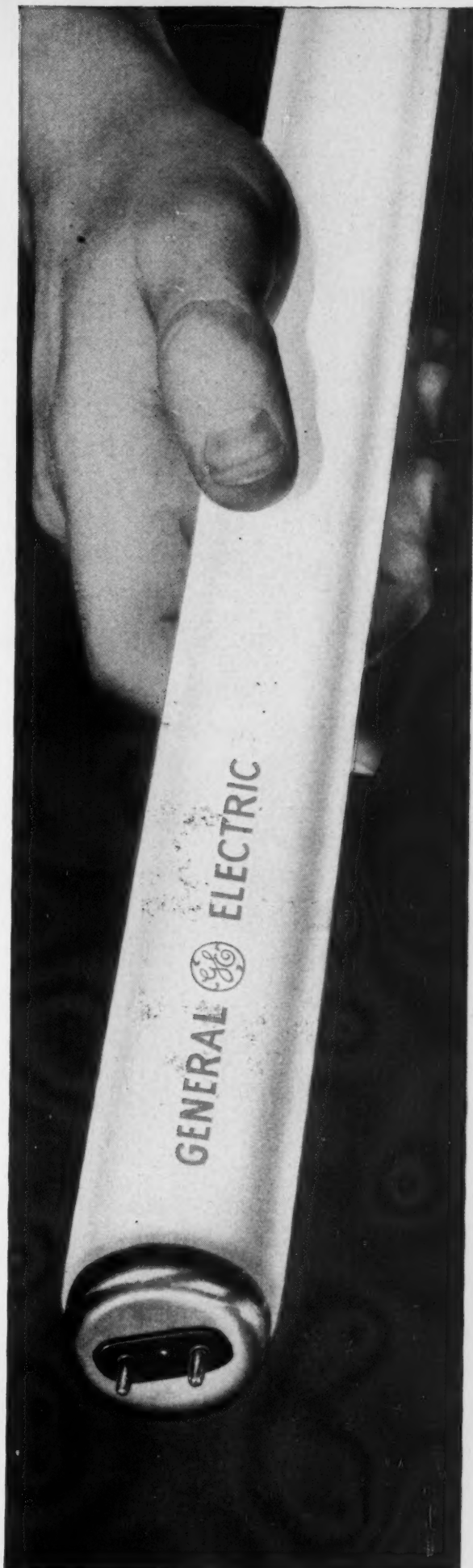


SILVERED BOWL



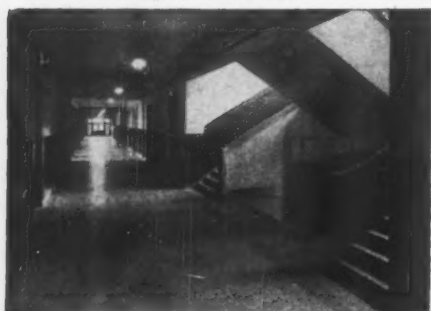
PROJECTION

*-G-E makes 'em all*





## Hillyard Products **Properly Protect** Every Type of Surface . . . IN EVERY TYPE OF INSTITUTION WITH LASTING SATISFACTION



★ In thousands of Schools, Colleges, Universities, Public and Private Buildings Hillyard Products are doing a grand job of preserving and maintaining a high standard of cleanliness. Thru Hillyard methods maintenance costs are reduced and many man hours saved in application and daily maintenance.

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# ANNOUNCING THE *New* CD-80



*For Schools* WESTINGHOUSE PLANNED LIGHTING PAYS

The new CD-80 is the latest contribution to easier learning through better seeing by Westinghouse.

It has exceptional flexibility. With louvers, it provides direct-indirect lighting. For semi-indirect needs . . . in classrooms and school offices . . . diffusing plastic bottoms are available. Side panels are of tough, lightweight plastic with low brightness characteristics . . . easily removable without causing sagging or warping.

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lined appearance . . . adequate shielding of lamps . . . light weight . . . easy installation. Maintenance is simplified, since starters are accessible without removing lamps . . . and lamps are replaceable without removing louvers or plastic bottoms.

In addition to the CD-80, Westinghouse manufactures a complete line of equipment for every school activity. For further information on school lighting, write for Bulletin B-3970 on Quality School Lighting. Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Penna.

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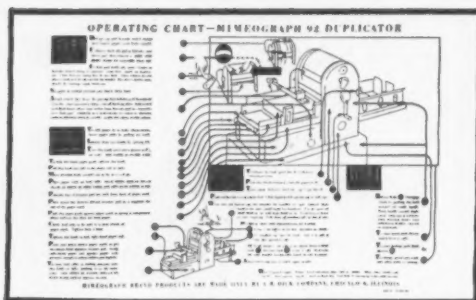
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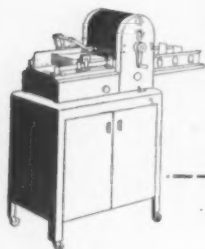
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# Looking Forward

## Salaries

**A**LTHOUGH the expenses of living rose steadily throughout 1947 and threaten to continue to rise during 1948, too little emphasis has been placed upon the need for continued adjustments in salaries of teachers and other public school employees for next year.

This de-emphasis is due primarily to the feeling among professional organizations that too much emotion was engendered during the 1946-47 salary and recruiting campaigns. With all of the emotional stops fully out, the conditions of the public schools were naturally somewhat exaggerated. Although the tide has turned, serious fiscal problems still exist for public education.

This year educational real wages are at a dangerous level. There is also great need for new, safe school buildings with modern equipment and adequate instructional supplies. Overall educational budgets should be increased by at least 25 per cent for the 1948-49 academic year if the acute crisis conditions of last year are to be avoided. Stronger emphasis on raising more money, locally and at state level, is essential.

## Make Democracy Work

**P**RESIDENT WILLIAM H. GREEN of the American Federation of Labor in testifying before the House Committee on Un-American Activities last year made a number of constructive suggestions that deserve the most earnest consideration of Congress and the American people. In combating the menace of communism he suggested a constructive approach to the problem. To him the threats of outlawing the Communist Party in the United States "would be unconstitutional and a confession of voluntary bankruptcy of American democracy." He did not believe that the communist threat could be successfully met with "the intolerant weapons of totalitarianism."

In Mr. Green's opinion the real appeal of communism stemmed from "poverty, privation, injustice and strife." If the United States not only maintains but improves our current democratic processes by eliminating obvious weaknesses and providing those values which the individual prizes, there can never be any grave threat to our way of life. He recommended legislation which would fill "the urgent and often desperate need for housing, expanded social security, improved health services, and adequate minimum wage protection."

It is impossible either to isolate ideas by quarantine or to destroy them through violence. The propaganda appeal of the Communists is that their system will eliminate the weaknesses of monopolistic capitalism. This idea can be successfully fought only by practical evidence that it is wrong. Until our democracy shows that a system of free enterprise can furnish good housing, steady work, good food, adequate medical care, equal educational opportunity, and equal economic opportunity for cultural minorities, communistic preachment will continue to be attractive to some Americans. The policeman's club has never been a good educational device.

## Undivided School Support

**A**LARMED by long continued and increasing sectarian pressures against public education, a nationwide organization known as Protestants and Other Americans United for Separation of Church and State was organized late last year for the purpose of combating these pressures and maintaining undivided public school support.

According to its manifesto of principles, the organization has been called into existence "because this principle (separation of Church and State) has been and is being violated by, and threatened with further violation in, certain areas and by certain acts of both government and church. The plain meaning of the first amendment to the constitution which forbids Congress to make any law 'respecting an establishment of religion' has been obscured by specious propaganda tending to confuse the public mind as to the clear-cut line of separation of Church and State. We shall endeavor (1) to revive in the public mind a clear understanding of the constitutional basis upon which religious liberty has been guaranteed, (2) to redress the specific violations which have recently come into force, and (3) to resist further encroachments. . . .

"A powerful church (the Roman Catholic) holds and maintains a theory of the relation of Church and State which is incompatible with the American ideal. It makes no secret of its intention to secure for itself a privileged position in the body politic. . . . It has already made such gains that the principle of separation of Church and State is in peril of nullification by legislatures and courts, and by federal, state and local administrations.

"One of the long range purposes of this church is to secure total support for its extensive system of parochial



schools from the public treasury. Its strategy in furtherance of this purpose is to fracture the constitutional principle at one point after another where the action can be minimized as trivial or disguised as falling within some other category than that of its ultimate intent. It has begun by demanding that certain marginal services for its parochial school pupils be financed by public funds raised by taxation for public schools.

"Already the legislatures of certain states, yielding to the political pressure of this church, have enacted legislation empowering local school boards to grant these special privileges. The federal Supreme Court in two decisions has confirmed state legislation which sanctions the use of public funds to provide free textbooks (1930) and to transport pupils to such schools (1947). The four dissenting justices in the bus transportation case solemnly warned the nation that these two breaches in the wall separating Church and State are only a beginning. 'That a third and a fourth breach, and still others, will be attempted, we may be sure,' said the dissenting justices.

"Protestants and Other Americans United is determined to assert its full strength to the end that there shall be no more breaches in this wall, that the breaches already made shall be repaired, and that the complete separation of Church and State in an undivided state supported educational system shall be maintained. The issue has now become tense in many states and many local communities. In some communities a church dominated school board has taken parochial schools into the public school system, with the result that bitter conflict and disorder have ensued, causing shame and disrepute to the whole community. Such spectacles afford a preview of the situation in which the entire nation will find itself if these encroachments upon the public school system spread."

The nonpartisan, impartial, classless and nonsectarian public school is essential to the maintenance and improvement of American democracy. There is no implication here that the efforts of voluntary organizations to provide schools should be curtailed. It does mean that all voluntary educational effort must be considered functionally as the right of protest and the implementation of that protest at their own expense. At present 10 per cent of the total enrollment of all schools, colleges and universities is in private and sectarian schools. The maintenance of the principle of undivided school support is absolutely essential to American democracy.

## Economics and Politics

GEORGE SELDES, with more than a dozen books to his credit devoted primarily to exposing unholy relationships between economic pressure groups and politics, now presents "One Thousand Americans" (New York: Boni & Gaer), which continues and expands the same theme. It includes seventeen chapters in four parts, Big Powers, Big Magazines, Big Business and Big Reaction, in which he develops the relationship among the powerful economic forces in the United States, our own government, foreign governments, and native fascist movements.

Much of the evidence has been drawn from official congressional publications which the American press has quietly neglected to report or has carefully buried among the advertising. His analysis of the daily press and weekly and monthly magazines as mediums of reliable information is particularly interesting and dovetails with his previous works on "You Can't Print That," "Freedom of the Press" and "Lords of the Press." In addition to running documentation, the book contains fifty-five pages of detailed appendix material taken from federal and other reports.

## U.M.T. Unnecessary

PHI DELTA KAPPA, national professional fraternity, recently adopted resolutions calling attention to the fact that the strongest type of national defense depends on "technical knowledge and the spiritual values of life." According to the resolution, "the public schools are in a strategic position to make America strong intellectually, physically, mentally and spiritually by an extended educational program (for) the development in youth of those qualities which are essential in times of peace and in times of war. . . . Phi Delta Kappa firmly believes that the support of a complete educational program for the youth of America would make universal military training unnecessary."

This group also believes that "strong minds as well as strong bodies are necessary to the general welfare of the nation . . . and research in the whole field of education as well as in the physical and biological sciences is essential to the preservation of the national well-being. . . . Congress should enact the National Science Research Foundation law and in it provide specifically for research in education as a basic contribution to the continuing fundamental strength of our nation. . . ."

The resolution further requests that the federal government appropriate sufficient funds to make a complete educational program possible of support in every state.

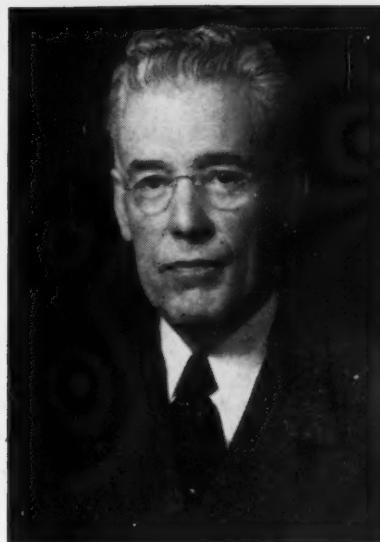
## Curb on Discrimination

THE Austin-Mahoney antidiscrimination bill, which sought to eliminate racial or religious bars against the admission of students to institutions of advanced learning in New York State and was killed in the 1947 legislature as a result of strong opposition by the Roman Catholic hierarchy, will be revived in 1948. Gov. Thomas E. Dewey has urged the legislature to provide legislation which will affect all except the strictly denominational colleges and universities. To be fully effective this legislation should also make provision whereby the "unwritten quota policies" now in practical effect in most of the professional schools of the state can be abrogated or their proponents penalized. Without means of reaching the professional organizations which maintain these quota policies through group pressure and faculty cooperation, such legislation will be only an empty shell.

*The Editor*

# FLOYD STARR

## Master Teacher



**S**ELFLESSNESS and untiring faith are common to all Master Teachers, appearing as unconscious disregard for personal comforts or consequences in working toward the achievement of their ideals.

When serious minded Floyd Starr told some Albion College undergraduates in 1908 that he believed there was no such thing as a bad boy and that he would devote his life to proving his belief, some smiled tolerantly, and others opined that it couldn't be done. Floyd Starr was graduated in 1910, married shortly thereafter and spent several years preparing for his life's work.

Friends and relatives thought him impractical when in 1912 he used a \$60,000 inheritance to buy some rolling land and buildings north of Albion, Mich., and started his teaching venture with just two boys. The next year Starr Commonwealth was incorporated as a nonprofit venture, divesting the founder of personal ownership.

Most schools and teachers face the not too easy problem of working with children who presumptively have character, but young Starr complicated his task by accepting only those lads who had proved legally that they had none. For thirty years Starr Commonwealth took every boy without regard to basic ability, neural stability or physical condition. Early failures were probably due as much to teaching inexperience as to heredity defects.

As Floyd Starr developed his great skill as a teacher, failures were farther apart. The annual enrollment reached 160 in 1947, when Starr Commonwealth graduates passed the 1000 mark.

The degree of success attained through Floyd Starr's environmental teaching is almost unbelievable. More than 90 per cent of all individuals attending the school have become good citizens. Graduates are well represented in the professions as well as in business and the skilled trades. The average length of school residence is two years.

Floyd Starr's educational philosophy is the unshakable belief in the innate goodness of human beings and their ability to grow into contributing members of society under stimulating environmental conditions in which love, understanding, sympathy and patience are always present. Learning to him is a healthy combination of love, work, play and worship. Natural and man-made beauty are such integral parts of his teaching that they sometimes escape notice. There is normal emphasis on the dignity of work, the sacredness of personality, and the brotherhood of man. Honesty, fair play, tolerance for individual beliefs,

and reverence for natural and spiritual law combine to produce a highly religious atmosphere. To Floyd Starr religion means making an ideal live.

He early discovered the first fundamental of education: flexibility in meeting individual differences. His methods are simple and sensible in meeting the diverse physical, mental, social, emotional and spiritual needs of his boys and in providing every possible stimulation for the development of their special interests and talents.

There are no fences around this school and no written rules about running away. Neither does Floyd Starr believe in corporal punishment. To him a boy is a reasoning being, and his almost incredible patience usually brings final success. Boys occasionally run away, but they also return, in most cases of their own accord, to the friendliness of their Commonwealth home. Self government has been the practical means of teaching civic competency since the beginning. Boys must grow up and accept responsibility. Unlike the conventional administrator, Floyd Starr does not believe young adolescents incapable of self direction.

As to Floyd Starr: he was born at Decatur, Mich., in 1887, of parents in comfortable circumstances, attended public schools at Decatur and Marshall and was graduated from Albion College in 1910. There is little else to say except that he is Starr Commonwealth, as much an institution as a person. Today there are assistants as teachers, house mothers and technical specialists, but each has been picked and is retained because he has caught something of the idealism and enthusiasm that motivates the founder.

Floyd Starr's enthusiasm is contagious. From the beginning he has been able to interest people in his work. They have enabled the school to acquire more than 1000 acres of excellent farm land with stout buildings, fourteen cottages where boys live in small intimate family groups, each under a cottage mother, and a school building. His motto: "The next thing I do will be better."

—ARTHUR B. MOEHLMAN.

# THE PLACE OF THE CONSULTANT

## School Administrator Needs the Expert for Special Problems

THE concept "educational consultant" is a little used term in the literature on education. In the practice of certain professions, such as medicine and architecture, the role of the consultant has long been recognized. But as late as 1945, even the Dictionary of Education\* made no use of the term except to apply the word "consulting" to a psychologist who acts as an expert to his clients in matters pertaining to psychological problems.

Despite this fact and the further fact that up to January 1948 no reference using the term "educational consultant" is listed in the "Education Index," the term has extensive usage in the oral discussions of school administrators and of members of boards of education.

### CONSULTANT DEFINED

As used in this article, educational consultant refers to a person who is called into conference regarding a problem or project in education on which special assistance or counsel is desired. It is assumed that the consultant possesses technical knowledge and experience pertaining to the matter on which he is expected to provide assistance or to give advice.

Boards of education and school administrators have frequently utilized the services of specialists in solving educational problems. For example, public accountants have been employed to audit school income and expenditures and to give advice regarding the administration of school funds. Likewise, the opinions of specialists in law have been sought when actions involving procedures conditioned by statutory or common law were contemplated. These practices not only are publicly accepted but are very generally demanded by progressive communities.

The services of specialists in finding the correct solution to problems of

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school buildings, curriculum, supervision, school reorganization, and the like, although not considered in the past in the same light as legal and financial services, are nevertheless coming more and more to be regarded as of equal, if not even greater, importance.

This is made necessary by the facts: (1) that many school administrators have assumed office without adequate preparation for many of their responsibilities, and (2) that many school problems present difficulties on which both the school administrator and his board of education may require technical advice.

The critical issue is: Where shall the administrator turn for the consultative services he desires? Probably the best single source of assistance is in the personnel of the faculties of departments or schools of education in institutions of higher learning.

### INFLUENCING FACTORS

The extent to which institutions of higher learning are able to provide consultative services to public school systems is obviously conditioned by three factors: (1) the number of qualified staff members in the field of public education and administration employed by these institutions, (2) the objectives of each institution with respect to field services, and (3) the time of staff members that can be devoted to services in the field.

As to staff members employed by institutions of higher learning for consultative work in public education and administration, the number is relatively small, averaging only a few persons for each state and private university offering graduate courses in education. Professors in other university departments, such as political science, English, history, science, for-

eign language, public administration, and so on, frequently are competent in certain aspects of public education and are willing to engage in limited field service activities.

These staff members may assume responsibilities for the professional preparation of school administrators, business managers, and specialists in curriculum, supervision, organization, administration and finance. They may also contribute to the literature on public education through their research, and they often reflect the emphasis which the problems in education and administration are receiving in the field.

### TIME IS LIMITED

The consultative assistance which public school systems have been able to obtain from such sources has depended largely upon the inclination of staff members of higher institutions to render off-campus services. Departmental loads are generally heavy. Instruction, student counseling, and research generally consume the full time of most professors.

A few are willing to utilize week ends and vacation periods to engage in field services for the additional compensation which such services provide. If public school systems must rely for consultative services on the small amount of leisure time of the professors interested in public school activities, the prospect of receiving substantial assistance is not very great.

### SHOULD RECOGNIZE NEED

It would seem that institutions of higher learning should recognize that the need of public school systems for consultative services in solving field problems in education provides an opportunity not only for vitalizing the research of their professors but also for improving the general status of public school systems. Consultative services might, therefore, be regarded as an obligation to the public schools which provide a large percentage of the students for the higher institu-

\*Good, Carter V.: Dictionary of Education, New York, McGraw-Hill Book Co., Inc., 1945, pp. XXXIX +495.



tions, and which employ the trained products of these institutions.

The objectives of most higher institutions might, therefore, well undergo modification to include on the part of their professors field services as part of their institutional obligations, as well as teaching and research. Some institutions have already made this change in their objectives and have set aside time in professorial schedules for consultative activities in the field. For example, some universities have committees on field services which undertake surveys and engage in consultation where the educational problems in need of investigation are of such character as to make the undertaking of mutual value.

#### **POSSIBLE SERVICES**

In the field of public school finance, the consultative services which a higher institution could be expected to render a school system might be: (1) surveys of school income and budgetary needs; (2) public relations programs designed to acquaint the people of a school district with its financial problems as related to local resources and the need for school support; (3) salary schedules in relation to present and ultimate costs; (4) proposed building programs in relation to plans for financing the programs; (5) appraisals of budgetary practices, records and accounting, and (6) studies of school finance designed to provide intercity comparisons.

#### **PUBLIC WANTS SPECIALISTS**

It is, of course, possible for a public school system to establish a bureau of administrative research, to employ staff specialists, and to carry on the studies needed to provide some of the information and the technical advice desired by the school authorities in making important decisions and in formulating policies. Even so, the need for consultative service would still exist. The average citizen is so constituted that he gives greater credence to the views of specialists from outside the school system than he does to one within the system whose personal status is not infrequently involved in any changes which he may propose.

Without doubt there are necessary limitations to the amount of consultative services that staff members of higher institutions can carry on in the field. Institutional obligations have been greatly increased in recent years

because of larger enrollments. With still further increases in enrollments anticipated and with no great increase in staff personnel, consultative activities are likely to be even more restricted in the future than in the past. This is particularly true of the university specialists whose off-campus time must necessarily be distributed sparingly, if they are to benefit many school systems.

#### **WHAT CAN WE EXPECT?**

In view of the limited number of specialists and the limited amount of their time available to public school systems, what can be expected from them in the way of timely research and of services as consultants?

Evidently not much can be expected unless local school systems recognize the situation and attempt to make the best use possible of the limited professorial time available. This can be done if local school systems will establish their own agencies for the collection of essential information.

#### **CAN RECORD VITAL DATA**

Good systems can be set up for the recording of vital data needed in solving school problems. If the school system requires assistance in setting up its record system and in interpreting the data collected, the time demand made on the personnel of the institution of higher learning for consultative service will then not be so great. A public school system which has thus tried to help itself should not experience difficulty in obtaining limited services of the sort indicated.

Another type of consultative service which offers still greater promise is that provided by an institution of higher learning to a group or organization of regional schoolmen in finding solutions for common problems. In such an instance, the consultant would aid the group in identifying problems for study, in collecting data, in directing the consideration of findings, and in arriving at generalizations with respect to policies and programs of action. Examples of this are the organizations sponsored by the Department of Education at the University of Chicago (Judd Club and the Superintendents Study Club), the Metropolitan Roundtable at Teachers College, Columbia University, and the Metropolitan Bureau of Cooperative School Studies sponsored jointly by the University of Michigan and Wayne

University. In such instances the consultants aid the groups.

This type of cooperative study is possible for almost any group of schoolmen situated within commuting range of an institution of higher learning which has on its staff a person interested in the study of field problems. Furthermore, such participation is equally valuable both to the higher institution concerned and to the public schools involved. It provides real problems for research and creates an in-service training situation of the workshop type for the school administrators who participate in making the mass attack on problems common to public school systems.

#### **ASSISTANTS HELPFUL**

Some small systems and many middle-sized and large school systems already have assistants on their central office staffs who compile information and tabulate data for the use of the school administrator in preparing his annual report, the annual budget, and the materials essential in formulating administrative policies. The superintendent may be so engrossed with administrative responsibilities that he cannot find the time to delve into the subtle phases of his data and to measure the bearing of the various factors on his problems.

In such instances he may require the services of a consultant whose broad knowledge and penetrating insight can provide the administrator with the special assistance needed in reaching administrative decisions. The administrator may take his data to the specialist and seek the advice desired without making an undue demand on the services of the consultant.

#### **CLOSE RELATIONSHIP NEEDED**

The complexity of many problems in education today and the preparation of personnel for field responsibilities require a closer relationship between school administrators and the faculties of training institutions than has prevailed in the past. The educational consultant might prove to be the solution to the existing problem if the leaders in public education and in institutions of higher learning conceive the task of solving educational problems as a mutual responsibility. If this is done, the benefits should be cumulative both for the leaders in public education and for the university specialists.

# Legal Aspects of Religious Instruction

## MANY QUESTIONS YET TO BE ANSWERED

THE recent decision of the Supreme Court of the United States declaring sectarian education in the public schools unconstitutional<sup>1</sup> poses many unanswered questions at the same time that it applies the general principle of the separation of Church and State to released time programs which violate the First Amendment to the federal Constitution. The decision must be weighed in its proper setting, and due care must be taken in making applications to religious education of types differing from the Champaign released time plan and, therefore, not before the court. Because the decision was announced in sweepingly general language, it does not mean that all references to religion in the public schools are to be eliminated.

### THE CASE IN QUESTION

The Champaign case came to the United States Supreme Court from Illinois, where the state supreme court had upheld the local plan of released time for religious education. A parent objected to the program because she did not wish her child trained in the doctrine of any faith and, while attendance at the classes in religion was voluntary, her child was put in a conspicuous position by nonattendance.

In view of the fact that there are many variations among the released time programs in different communities, it is well to examine how the Champaign plan was operated. The Champaign Council on Religious Education furnished cards to the school authorities which the teachers distributed to their pupils so that parents could indicate whether they desired religious instruction for their children and, if so, in what faith. Religious classes were conducted in the regular classrooms by teachers who were employed by the council but who were subject to the approval of the public school superintendent.

Three groups were formed (Protestant, Catholic and Jewish), but the

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plan allowed for separate classes in any particular doctrine if the public school superintendent deemed it "practical." Pupils who did not attend the religious classes were required to go to a study hall or to occupy themselves with regular school work. Attendance reports were submitted by the religious teachers to the school authorities. The plan obviously included a high degree of cooperation between the school personnel and the Council on Religious Education, in addition to the use of the school buildings for religious instruction.

State departments of education have reported to the N.E.A. Research Division that religious education classes are carried on during school hours in school buildings in some school districts of nine states;<sup>2</sup> released time programs, where the children leave the school during school hours for religious instruction elsewhere, were reported as operating in some school districts in thirty-three states.<sup>3</sup>

### TWO VARIATIONS

Although there are many variations within each of these two types of plans, local programs for religious instruction may be classified on the basis of (1) whether the children leave the school or (2) the religious teachers go to the school. The degree of public school cooperation in various local plans is a great deal more difficult to classify.

Cutting across these categories are programs which do and do not use public funds. Most state constitutions

prohibit the use of public revenues or public school funds for sectarian education, and presumably any released time plan in these states would violate the state constitution if any cost of the program were charged to school funds. For this reason, one released time program in New York State was declared to violate the state constitution,<sup>4</sup> while another plan in the same state was upheld because no school funds were used.<sup>5</sup> Somewhat difficult to understand has been the decision by the California court which upheld the Los Angeles plan regardless of the fact that the cards on which parents indicated the faith in which they wished their children to be instructed were paid for by school funds, even though the California constitution contains a prohibition against the use of school money for sectarian education.<sup>6</sup>

### POSITION ON PUBLIC FUNDS

No tax money was used in the Champaign released time program, but in its opinion the United States Supreme Court quoted from its previous decision in the *Everson* parochial school transportation case<sup>7</sup> that "No tax in any amount, large or small, can be levied to support any religious activities or institutions, whatever they may be called, or whatever form they may adopt to teach or practice religion." Thus, any religious education which involves the use of public money violates the First Amendment to the federal Constitution, regardless of state constitutional provisions on the subject, or their nonexistence.

The Champaign released time program was held unconstitutional even though it did not use school funds. Nor apparently was the use of school buildings for the religious classes the sole reason for the invalidity of this plan. The "close cooperation between the school authorities and the religious

<sup>2</sup>Alabama, Louisiana, North Carolina, Ohio, Oklahoma, Oregon, Texas, Vermont, Virginia; also Hawaii.

<sup>3</sup>Alabama, Arkansas, California, Colorado, Connecticut, Florida, Georgia, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Jersey, New York, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Utah, Vermont, Virginia, West Virginia, Wisconsin; also Alaska and Hawaii.

<sup>4</sup>*Stein v. Brown*, 211 N.Y.S. 822 (N.Y., 1925).

<sup>5</sup>*People v. Graves*, 219 N.Y.S. 189 (N.Y., 1927).

<sup>6</sup>*Gordon v. Board of Education of Los Angeles*, 178 P. (2d) 488 (Calif., 1947).

<sup>7</sup>*Everson v. Board of Education*, 330 U. S. 1 (1947).

<sup>1</sup>*People of the State of Illinois ex rel. McCollum v. Board of Education of School District No. 71, Champaign County*, October Term, 1947, No. 90.

council" was a reason apparently as important as the use of tax supported property for religious instruction.

The court disapproved of the "utilization of the tax established and tax supported public school system to aid religious groups to spread their faith." It should be noted that the court said "system" and not "property." More specifically, the compulsory school attendance machinery was used to provide pupils for religious classes and thus afford sectarian groups "invaluable aid."

From the court's opinion, giving these reasons for holding the Champaign program unconstitutional, it would seem that plans whereby pupils are released to go off school premises for religious instruction are equally unconstitutional, provided other factors are present to invalidate the plan. In fact, the opinion was so generally stated that it might be said to apply to all types of religious education involving public school cooperation with sectarian groups.

The 8 to 1 decision was given in four opinions: three against the Champaign program, one upholding it. The court's official opinion did not mention that there are many different types of released time plans. The separate concurring opinion in which four justices joined, agreeing with the decision but expressing greater particularity in their reasoning, did discuss the variations in programs and said that some of these variations may be "constitutionally crucial." This seems to mean that some religious education programs may conceivably not violate the First Amendment.

#### FACTS ALONE COUNT

"Released time religious education programs" in the abstract cannot be considered by a court. Courts must decide cases before them on the basis of the facts represented in each case. The four justices pointed out that organized religious education plans differ in the degree of sectarianism taught, in the amount of cooperation by the school authorities, and in the extent of releasing pupils from compulsory school attendance. Reading between the lines of the text of this opinion with its footnotes makes it appear that classes in religion are constitutional only if held off school premises after the dismissal of the school, without official school cooper-

ation,<sup>8</sup> or when held on school premises or during school hours, if the instruction is restricted to teaching of "democracy, unity and spiritual values not anchored in a particular creed."

#### NONSECTARIAN EDUCATION

Justice Jackson felt that the court's opinion was stated in such general terms that even reading the Bible and repeating the Lord's Prayer in public schools would come by implication under the constitutional ban. Reading the Bible is required by state law in ten states<sup>9</sup> and, by statute, is authorized, although not required, in five others.<sup>10</sup> Three states give explicit statutory permission to use the Lord's Prayer;<sup>11</sup> two others require instruction in the Ten Commandments.<sup>12</sup> State courts, where these statutes have been challenged as violative of state constitutional provisions against sectarian education in the public schools, have generally upheld these practices.

Most of the state courts have held that the Bible is not a sectarian book, although four state courts have taken the opposite view and held that Bible reading in the public schools violated state constitutions.<sup>13</sup> The United States Supreme Court has never had before it the question of whether Bible reading in the public schools violated the First Amendment of the federal Constitution. Bible reading, repeating the Lord's Prayer, singing hymns or carols—these practices were not before the court in the Champaign case.

The only connection was indirect in that Mrs. McCollum in her complaint objected to all teaching of the Scriptures, repeating of the Lord's Prayer, and certain other instruction concerning the Bible. The complaint ended with her prayer to the court that the school board be ordered to "adopt and enforce rules and regulations prohibiting all instruction in and teaching of all religious education. . . ."

<sup>8</sup>This type of plan has been called "dismissed time" rather than "released time" and is (or was) used in France. The justices spoke approvingly of "dismissed time" whereby one school day was shortened, and all pupils were dismissed. They can then attend religious classes or follow their own pursuits.

<sup>9</sup>Alabama, Arkansas, Delaware, Florida, Georgia, Maine, Massachusetts, New York, Pennsylvania and Tennessee.

<sup>10</sup>Indiana, Iowa, Kansas, North Dakota and Oklahoma.

<sup>11</sup>Delaware, Maine and New Jersey.

<sup>12</sup>Mississippi and North Dakota.

<sup>13</sup>Louisiana, South Dakota, Illinois and Wisconsin.

Justice Jackson felt that when the court granted this prayer it went beyond a decision on the released time program and invalidated other types of religious education also, such as were enumerated in Mrs. McCollum's complaint. His technical reasoning may or may not be correct, but since no other justice had the same impression of the decision, it seems reasonable to conclude that the question of whether reading the Bible in the public schools is sectarian education and, therefore, unconstitutional, or not, will require further litigation before it is answered.

Justice Jackson went even farther and stated that, in his opinion, the decision might also apply to references to religion in the usual curriculum of the school, such as religious development in history, art, music, and the theory of evolution in biology. Following his own legalistic reasoning, there is no justification for such an application of the decision, since Mrs. McCollum in her complaint made no attempt to have such matters eliminated from the school curriculum.

#### THE DISSENT

The one dissenting voice in the Champaign case was that of Justice Reed. He reviewed many past practices where the government (federal, state or local) has cooperated with religious groups, and he concluded that these past practices should determine the meaning of the First Amendment to the Constitution. The court, he said, should be cautious in "upsetting practices embedded in our society by many years of experience." Although he agreed that aid to sectarian education was prohibited by the Constitution, he felt that the released time program in Champaign, or other types disapproved by the other eight justices, did not constitute unconstitutional aid.

#### PRACTICAL CONSIDERATIONS

School administrators may well ask themselves where the Champaign decision leaves them with respect to their own local practices. In some aspects of what may be broadly termed "religion in the schools," there may be ambiguity, as for instance, Bible reading. In other aspects, such as a released time program operated during school hours, on or off school premises, where the school authorities actively cooperate with outside agencies to



operate the plan, there is no question—this is unconstitutional. "Dismissed time" programs, where there is no public school cooperation, if any such exist, or religious instruction, which is absolutely nonsectarian, are probably not affected by the decision.

In evaluating any particular local practice, its unconstitutionality may be determined by measuring the similarity with the Champaign plan. The more similar in details with the Champaign released time program, the more certain is its unconstitutionality.

The converse is not necessarily true, however, in view of the generality of the court's decision. Nevertheless, the measure of dissimilarity may well be used until further litigation defines the application of the Champaign decision with greater particularity.

# INTANGIBLE REWARDS OF TEACHING

## Good Teachers Have Many Reasons for Staying in the Profession

**D**ESPITE the fact that there is a serious shortage of qualified teachers for public schools and that 125,000 teachers with subcertification standards have been employed to fill teaching positions, we are inclined to forget that all teachers have not deserted their profession.

Hundreds of thousands of teachers have stood by their chosen work loyally, even to the extent of great personal economic sacrifice. Furthermore, the great percentage of those who remain are efficient, hard working and devoted to the service of child and state. They are not the halt or the blind. In the main, they are men and women of courage, foresight and professional skill.

### WHY HAVE THEY STAYED?

Why have these people stayed in the profession? Why do they continue to give their energies, professional and cultural knowledge and technical skills to serving children in the American schoolroom? Is this a social or biological mystery with no clues for solution? Or, are there explanations which, when understood, make good sense and attribute some sanity to teachers who continue their service in the schoolroom?

First, to the teacher who is culturally and professionally well trained and who has imagination and insight, teaching is an adventurous, exciting, absorbing and stimulatingly challenging experience. Human beings by nature like to be engaged in occupations with that kind of challenge. No teacher who really understands children and realizes their potentialities can fail to find in teaching the excitement that comes with real adventure. The unpredictableness of the whole job of teaching children and

youths appeals to the person of courage and initiative.

I have watched a surgeon friend perform a difficult operation. I admire and profoundly respect him for his understanding, his skill and, above all else, his courage as he goes about his duties. The kindergarten teacher, the fourth grade teacher, the teacher of any grade needs basic understanding even broader than that of the surgeon.

Like the surgeon, she must diagnose her patients' conditions. She must recognize the needs of each child and provide the school experiences to meet his individual needs. She must have a basic understanding and appreciation of culture and the whole social pattern. Her task goes beyond that of serving the child. She is serving the state by shaping the citizens of tomorrow.

### NEED OF UNDERSTANDING

It may be said that the teacher has from twenty-five to forty patients in the "operating room" at one time. These excessive numbers add to the hazards. The wrong requirement, the wrong word, the wrong activity may be dangerous to the child in a physical, mental or emotional sense. The skilled and intelligent teacher is sensitive to this and acquires the understanding and skill sufficient to develop the potentialities of all his pupils.

I have remained in teaching because the profession has gradually come to demand these high qualifications of its members. Also, I believe that many

teachers are attracted to the profession and are held in it because it demands so much and presents so many hazards. As for excitement, no teacher of insight and imagination has ever found monotony in the classroom. Every minute of the day offers its stimulation, its problems and its manifold joys.

### CAN WORK TOWARD IDEALS

Another factor which enhances the attractions of teaching is the opportunity it offers for furthering man's highest ideals. Basically, the objective of education is to help an individual develop to the highest degree possible the best potentialities that lie within him. It has the further motive of assisting to develop a society which is strong and helpful to all. Man without ethics and morals is scarcely more than an animal. Good teaching helps advance him toward the destiny which his ideals suggest. The loftiest ideals of men are the objectives toward which we assist young minds to move, work and develop.

Certainly, one can find little else in this world which gives the complete, basic and lasting satisfaction that comes from teaching. Teaching stands near the top of all human endeavor in the light of humanitarian values. Herein lies the explanation of why teachers remain in the profession. For me, as for others, the reward has been lasting and bountiful in personal satisfactions.

### ESSENTIAL TO DEMOCRACY

Teaching is a noble profession. Men everywhere recognize the fact that the teacher is the bulwark of the republican form of government, that education is basic to any democratic state, and that the teacher is the backbone

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of education. In the last analysis, the teacher is synonymous with education to the youth. This makes her a respected person and her profession a respected human endeavor. It is true that the teacher is sometimes caricatured but, fundamentally, society as a whole has a deep and earnest faith in her work and respect for and confidence in her.

Furthermore, I believe that many persons stay in the teaching profession because it is everlastingly moving, shifting and changing. It is true that some individuals like to remain static, but man normally is an active organism who faces change and adjustment gladly and courageously. Teaching calls for constant reexamination, restudy, rethinking and retraining. That is why our summer schools are crowded every year with teachers who financially can ill afford to attend them.

Why do teachers go? Because they know that they must keep abreast of changing conditions and must study and work to do so. In fact, it is this constant challenge which inspires many to continue in the teaching profession. Although there is griping among teachers here and there, many believe in the work so profoundly and like the requirement of change so much that they never would consider leaving the profession. They continue their work because they must everlastingly make adjustments to a new and challenging world.

#### **ASSOCIATES ARE PLEASANT**

Exerting considerable influence on my decision to remain in the profession is the fact that I like my associates. Congenial, likable human companionship is prized by most men. Within the teaching profession such relationship can be found. The teaching profession has a high percentage of men and women of sterling character, unselfish motives and cultural attainments. It is of no small moment to feel that one is to spend a lifetime with colleagues and associates having the characteristics possessed by the majority of the teaching profession.

Furthermore, the opportunities which are afforded for intimate and varied friendships with children and parents alike cannot be matched by any other occupation or profession. The public school is the forum for all races, all creeds, all social and eco-

nomic groups. The good teacher meets, knows, understands and appreciates them all.

#### **LIFE IS ENRICHED**

How could life be enriched more bountifully? To the extent that the teacher seizes these opportunities is she able to serve and be served. Sociologists and anthropologists tell us man is gregarious by nature, that he craves companionship and human relations. The doors are open wide for teachers to fulfill these longings.

Theodore Roosevelt once said, "If you teachers do not do your work well, this republic will not outlast the span of a single generation." I, like this great American, believe that the foundations of democracy rest upon the enlightenment of all the citizens. I am convinced that an understanding by the child of the concepts of democracy derived not only through knowledge but through actual participation in democratic activities in his daily life, inside and outside school, is basic to our American way of life.

It is because I believe that these understandings, skills and appreciations can be developed fully by no agency of society save the free public school that I have gladly dedicated

my life to teaching and to allied educational enterprises. My reward, which comes from the ever present belief in the essential worth of my vocation, has been deeply satisfying. Possibly man can long for no other reward more passionately nor, when it is received, find it more deeply gratifying.

The foregoing explanations of why teachers remain in educational work when examined as a pattern suggest that those who like teaching make up an essentially steady, stable bloc of American citizenry. They do not shift with each turn of the wind. They are determined in their goals and will persist in going toward them, be the wind off the bow or off the stern. So the conscientious, professionally trained teacher stays with her chosen work, not unmindful of the need for improving her lot. In fact, it is this stable, dependable group which in times of distress, such as now, makes itself understood and felt in each community.

I have stayed with the profession in spite of more lucrative offers in other fields chiefly because all the satisfactions I receive add up to making me a reasonably sane, emotionally balanced and average citizen who can determine relative values.

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### **Administrators Get Smaller Salary Increases**

Many public school superintendents have been far more successful in getting higher salaries for their teachers than they have in obtaining more money for themselves. The Teacher Placement Bureau of the University of Wisconsin, of which R. A. Walker is the director, has published the results of a study of salaries of school administrators and high school teachers.

Several hundred superintendents, high school principals, and high school teachers cooperated in furnishing the data upon which the studies are based. In order to study salaries of city superintendents, questionnaires were sent to every superintendent in the state directory who had been in administrative work in Wisconsin for the last seven years. Sixty-one, or almost all of them, replied.

Beginning teachers for the seven-year period, 1941-42 through 1947-48, showed an average gain of 93 per cent. Teachers who had not moved in seven years gained an average of 73 per cent,

while those who had moved gained an average of 105 per cent.

By contrast, the average gain for superintendents for these same years was only 49 per cent. Not one who had remained on the same job for the seven years had had his salary doubled. The salaries of city high school principals increased only 40 per cent, which would make it seem that these are the "forgotten men" in the field of administration. They are the ones, according to the report, who "rarely even appear to plead their own cause. They merely take the small increases given them, pull their belts tighter, and remain silent."

During the last seven years salaries of beginning women teachers in high school have risen from \$1120 to \$2163, a gain of 93 per cent, according to Mr. Walker's study. Salaries of beginning men for 1947-48 averaged \$2737. Indications are that beginning salaries for 1948-49 for women will be \$2400 and for men \$3000.

# Improvements for Leisure-Time Activities Suggested by Junior High School Groups

Students tell what they would like to do and what equipment they prefer. Their choices show desire for more physical activity.

TOO often in years past, administrators and teachers have planned curricular and extracurricular activities without letting students express their likes or dislikes.

The boys and girls of the Eau Claire Junior High School answered a questionnaire regarding their leisure-time activities. The last section sought their suggestions for the betterment and enjoyment of their leisure time. Their voluntary answers were greatly encouraged.

A total of 686 students participated in this study. Of these, 340 were seventh graders and 346 were eighth graders.

The first question asked was, "Have you ever had spare time or extra time

outside of school in which you wished you had something to do?"

From 65 to 70 per cent of the boys and girls wished they had something to do during their spare time. The per cent at each age level was higher for the girls than for the boys, with the exception of the 13 year old girls.

**CHOSEN ACTIVITIES FOR SPARE TIME.** Since most of the boys and girls have spare time, they were asked what they would like to do if they could choose. The boys suggested thirty-five different activities, the girls, fifty. The first choice for each sex was sports. The second choice for boys was work experience; for girls, reading. The third choice for boys was hobbies; for girls, home or fine arts. Work experience ranked fourth with the girls and hobbies, seventh.

Other occupations mentioned by the students could be classified under the general heads of industrial or fine arts,

**ESTHER M. ANDERSEN**

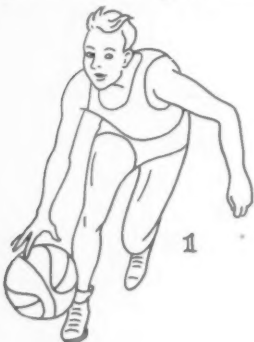
Teacher, Junior High School, Eau Claire, Wis.

and wholesome, with the exception of those made by the "indifferent group" which constituted 6.4 per cent of the boys and 4 per cent of the girls, or one out of every ten students.

Members of this group, who are willing to do "anything," can in many cases be persuaded to do the wrong as well as the right thing. These are the individuals who, if they could be discovered, should have their latent interests checked, possibly through an interest inventory, and then developed so that each would have a goal to work toward.

When asked if there was any equipment which they thought would add to their leisure-time enjoyment, 46.1 to 50 per cent of both sexes reported that there was. The 12 year old boys felt the need for such additional equipment greater than did the 12 year old girls, and the 13 and 14 year old girls more so than boys of the same age.

What kind of equipment or facili-



## BOYS' PREFERENCES

1. Sports
2. Work
3. Hobbies

## GIRLS' PREFERENCES

1. Sports
2. Reading
3. Home or Fine Arts

travel, attendance at movies, radio. There was a so-called "indifferent group" among both boys and girls whose choice of occupation included sleep and "anything." And among the girls, the miscellaneous activities of "going visiting" and "going to more parties" were mentioned three times.

As a whole, these choices of leisure-time activities by students are good



ties did the students suggest? The accompanying table lists them. The items are arranged according to those needed within the school and those needed outside of school.

Within the school, the physical education department received the most attention from both boys and girls; a crafts room came second. More movies and more assemblies were suggested by both sexes. The boys asked for more clubs for both boys and girls to join and also for free band instruments. The girls saw the need for more books in the library.

As a whole, these suggestions for the school are practical. The students are seeking to create situations wherein more of their classmates can participate. They want more clubs, more basketball teams, kittenball teams, and play equipment. They want the gymnasium open on Saturdays. They want to be participants, not spectators, in the realm of sports.

The suggestions for improving the facilities outside of the school also bear consideration. The two needs most urgently felt by both the boys and the girls are for (1) better and more swimming pools and (2) more playgrounds. There also are needs for a Y.W.C.A., a bigger youth center, teen canteens, boy scout troops, a ski jump, and good beaches. These are suggestions for one particular community,

but they could serve for many other communities as well.

The suggestions made by these students are within the field where there is opportunity for activity and social development. They seriously neglected the other recreational fields, such as the dramatic, the creative and constructive fields, music, civic organizations, and church groups. They failed to mention the band, the orchestra, the choirs, the school library, the social studies club, and the art department—all of which are well equipped departments of the school.

Throughout this study, there is an overemphasis on physical recreation. The students prefer sports; they suggest sport equipment; the facilities liked best within and outside of the school system pertain to physical activity.

This interest should be maintained; these activities are healthful, constructive and worthwhile, but there are other recreational interests which should not be neglected. There are the libraries, the summer camps, the parks, the city and school bands, the vocal and instrumental concerts, clubs within the school, besides all the activities within the various churches.

It may be the school's responsibility to direct student interests along these lines, but it is also a community's opportunity as well as the parents'

duty to aid these children in selecting a variety of leisure-time activities and in making it possible for their interests to be developed.

## School Expenditures Lag Behind Rising Costs

WASHINGTON, D.C.—A new pamphlet, "Still Unfinished—Our Educational Obligation to America's Children," has been released by the N.E.A.

The report points out that expenditures for elementary and secondary education have not kept pace with rising costs. The study was made by the Institute of Administrative Research of Teachers College, Columbia, under the direction of John K. Norton and Paul R. Mort and brings up to date a study made in 1939 by Dr. Norton. It is thus possible to make comparisons between educational expenditures in 1940 and those in 1947.

An educational profile is given for the entire country and for each state. It shows the per pupil cost by school districts in each state. Thus, in Alabama, per pupil expenditure for 5 per cent of the children is less than \$10 a child while for 3 per cent of the children the expenditure is more than \$100 a child. In New York, the range is from \$50 to \$325. Each profile shows also the expenditure necessary for an adequate minimum program in 1946-47.

Per pupil costs advanced only 66 per cent from 1940 to 1947, which resulted in a decrease of 20 per cent in the purchasing power of money spent for education. Only eleven states increased school expenditures enough to compensate for this decline. Their percentages of increase were: North Dakota, 122; Oregon, 95; Maine, 94; Washington, 94; Georgia, 93; Kansas, 92; New Mexico, 88; Arkansas, 87; Iowa, Oklahoma and Virginia, 86.

The pamphlet asserts that (1) enormous inequalities in expenditure per pupil still exist; (2) some states increased pupil costs more than the country as a whole but still have too little per pupil to buy adequate schooling; (3) some states increased expenditures at a slow rate but still expend more per pupil than the average for the United States; (4) some states were substandard in school expenditures in 1940 and dropped farther behind between 1940 and 1947.

## EQUIPMENT SUGGESTED FOR LEISURE-TIME ACTIVITIES

Boys' Suggestions	Girls' Suggestions
<p>WITHIN SCHOOL</p> <p>Physical education</p> <p>Bigger gymnasium</p> <p>More play equipment</p> <p>Boxing ring</p> <p>Gymnasium open on Saturdays</p> <p>Outside basketball court</p> <p>Kittenball teams</p> <p>More basketball teams</p> <p>Football field</p> <p>Spring football practice</p> <p>Crafts room</p> <p>More movies</p> <p>More assemblies</p> <p>Free band instruments</p> <p>More clubs for boys and girls to join</p> <p>OUTSIDE OF SCHOOL</p> <p>Swimming pool</p> <p>Roller skating rink</p> <p>Beaches improved</p> <p>Zoo or museum</p> <p>Ski slide</p> <p>Free Y.M.C.A.</p> <p>Summer playgrounds</p> <p>More boy scout troops</p> <p>Archery range</p> <p>Rifle range</p> <p>Larger youth center</p> <p>More amusement in parks</p>	<p>WITHIN SCHOOL</p> <p>Physical education</p> <p>Bigger gymnasium</p> <p>More play equipment</p> <p>Inside swimming pool</p> <p>Gymnasium open on Saturdays</p> <p>Volley ball teams</p> <p>Dancing teacher</p> <p>Crafts room</p> <p>More movies</p> <p>More assemblies</p> <p>More nonfiction books in library</p> <p>OUTSIDE OF SCHOOL</p> <p>Swimming pool</p> <p>Summer playgrounds</p> <p>Teen canteens</p> <p>Bigger youth center</p> <p>Tennis courts</p> <p>Skating rinks</p> <p>Riding horses</p> <p>Good beaches</p> <p>Y.W.C.A.</p> <p>Nursery school</p> <p>Saddle club</p>

# Chalk Dust

## APRIL

*April bringeth an oft told tale,  
We planteth the tree on Arbor Day,  
Cometh the summer with drought and hail,  
We diggeth it up and throw it away.*

» » « «



APRIL means "to open." Leaves leaf and flowers flower. Birds and bees begin to hum. Little animals, having slept through the winter, come out of their burrows and shake their paws. Flocks of birds flutter northward, and early butterflies flutter from their dreams.

Kids open, too. There is laughter in the school halls and on the playground. Kites, marbles and roller skates come forth. That's April.

Pity now the doctor, lawyer, merchant and chief, for April is just another month to such. They hear only faintly the joyful shouts of children. They see only dimly the resurgence of life. They feel only feebly the youth-time of the year.

But in April the schoolmaster sees clearly and hears and feels and knows that life is renewed. For just as the little lambkins kick their heels on the hillsides, so do his little charges kick their heels in the school. The kids kick, the faculty kicks, the parents kick, and the taxpayers kick. That's April.

» » « «

## PICKING TEACHERS



"BECAUSE of an irreconcilable difference of opinion among my board of education regarding what constitutes a living wage," writes Superintendent Sourpuss, "I was given the job of obtaining a new teacher. According to the best educational authorities, this job is 'the most important task of the school administrator.'

"I decided to make a scientific study of the problem, and so I gathered rating scales from all the schools in the country. Examination of these scales shows that an acceptable teacher, in addition to postgraduate credits at Columbia, must possess the combined qualifications of an angel, airplane hostess, charwoman, public relations counsel, ice cream salesman, village blacksmith, glamour girl, registered nurse, beautician and child care expert, together with a sense of humor and a sweet singing voice. The rating scales don't miss a bet but obviously they are not conversant with my salary schedule.

"However, in response to my frantic summons, a few candidates appeared and I hurriedly read a couple

of books on 'The Technic of the Interview.' Upon trying out the technic, it was quite evident that the candidates had read the same book because I was the one who was interviewed, and I was presently flunked in all qualifications heretofore mentioned, plus sex appeal.

"Thus thwarted, I decided on teacher selection 'in absentia' by obtaining letters of character reference. I hereby state flatly that I am an optimist, and I still do not believe that all such letter writers are prevaricators, deceivers, sockdolagers, liars or horse thieves, although I have no evidence to the contrary.

"Because of my unfortunate experience in credulity, I was forced to my bed with nervous indigestion, and, in my absence, the board of education filled the teaching job by employing a second cousin of the wife of the board president. I am happy to report that she proved to be an excellent choice."

» » « «



ORDINARILY, the day's mail which comes to a superintendent of schools is nothing to get excited about—a plethora of duns from local tradesmen whose bills have been sidetracked by the board of education's argument over the color of football jerseys, some resounding blurbs about new workbooks which absolutely guarantee to do all of the work, and a redundancy of newspaper quotations condemning modern education.

But today comes an advertisement of a new service. "We guarantee to answer your telephone twenty-four hours each day," the earth shaking pronouncement reads. "A telephone-secretary will answer your calls as though she were in your office. Write for full details."

Gentlemen, we are interested! We are definitely a prospect!! Tell us more!!! Do you charge by the content of the call or by the implications? When Mrs. Mamillarian phones and says she doesn't like our methods, she doesn't like our face, she doesn't like us, period, close quote, slam bang receiver—is such a call charged by the time or by the emotion generated?

Do you charge by the call or by the hour?

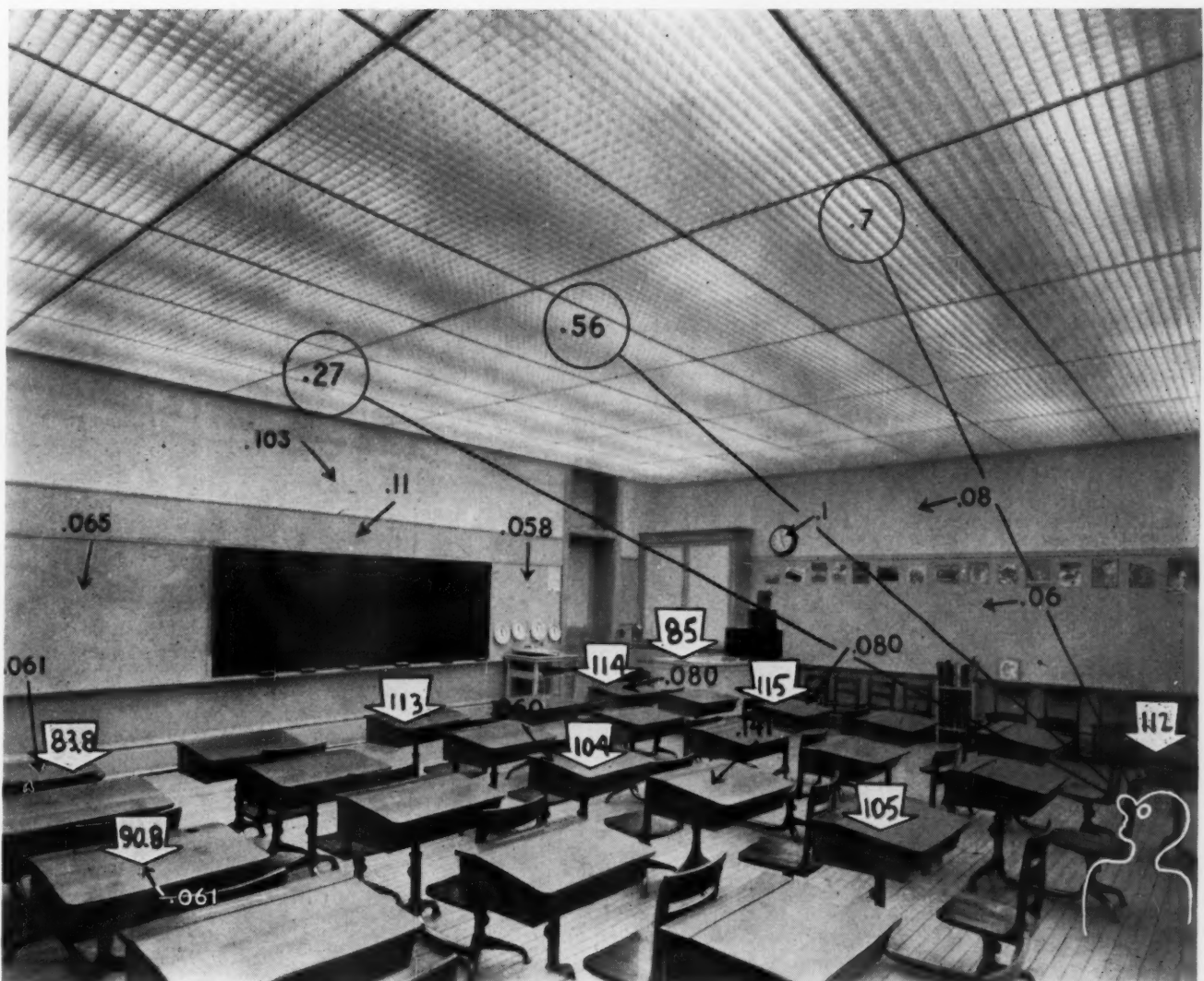
And is our joint telephone-secretary always polite, cheerful, sweet, courteous and tactful in the face of strong words? If not, who gets fired, you or I?

Sirs, if your replies to the above are in the affirmative, this telephone contract is yours, and we will throw in our own job as a bonus. Please wire reply.

*Travis J. Smith*

EXPERIMENTS IN

# Artificial Lighting



THIS PRIMARY GRADE CLASSROOM in the Des Plaines (Illinois) public schools is illuminated by a ceiling of light. Over-all louvers greatly reduce the brightness of the light source, 40-watt fluorescent lamps. Figures in circles on the ceiling are brightness readings in candles per square inch. Figures within the arrows on the desk tops are measurements of intensities in foot-candles. The other figures are brightness readings at various points within the classroom.

(See article on next page.)



# PROPER CLASSROOM LIGHTING A PREREQUISITE TO LEARNING

A MAJOR objective of any school system must be the improvement of physical facilities to enhance instruction. Not so long ago we built school plants, and installed equipment, without much thought for the children who would live and learn in them. The child would have to fit the school. Now all that is changing. School buildings and equipment must fit the needs of the learner.

A new science in educational research is slowly but surely coming of age. It is the science of environmental control. It has important implications for educators, architects and manufacturers and suppliers of materials used in constructing, finishing and furnishing new school buildings. It has just as important implications for the renovation and remodeling of old plants.

How important are the factors of classroom seating, decorating and lighting in the health and achievement of the pupil? What effect do the acoustical properties of halls and classrooms have upon the emotional behavior or personality of each pupil?

A sense of belonging and a feeling of security for each child have long been recognized as essentials in a pupil guidance program. Do a pleasant decorating scheme and good lighting contribute to an "all's well" atmosphere and thus play an important part in the emotional well-being of the pupil?

## LIKE TEACHER, LIKE SCHOOL

And what about the teacher? An educational maxim is: "As the teacher, so the school." If the physical complements of a school and classroom create a conditioned environment to accommodate noisy, growing children, will the teacher's task become easier?

Even parents, whose concern should be the greatest, have been more or less indifferent to the physical school environment of their children. Although they have been voluble in their reactions to methods and results of instruction, they have been woefully inexpressive in the matter of classroom environmental needs. How *infre-*

## LEON SMAAGE

Superintendent, Elementary Schools  
Des Plaines, Ill.

quently have educators heard comments from parents like these:

"Look, *my child* has only 5 foot-candles of light on his desk!"

"All these desks are the same; this desk is *too small* for my child."

"This school is noisy, but what can you expect with hundreds of children using these halls? Why don't you *sound-condition* them?"

"I am sure *my child* would do better if he had an attractively decorated schoolroom. How can anyone learn in these drab surroundings?"

Although much more research on the subject is needed, there is evidence that correct classroom physical engineering is conducive to proper child development. This is especially true in the rapidly developing field of school lighting.

## NEARSIGHTEDNESS INCREASES

In answering the question, "Are children wearing out their eyes?" a brochure of the General Electric Co. points out that the incidence of nearsightedness increases as children progress through school to adulthood. Only about three out of every 100 babies begin life handicapped by nearsightedness.

In the elementary school seven out of 100 have eye defects; this level increases to 24 per cent for high school students, and of those who are graduated from college 40 per cent, or two out of five, have defective vision.

It is only reasonable to expect that improved lighting in the classroom will improve this deplorable condition, since recent surveys indicate that the average value of artificial illumination in school buildings is but 4 or 5 foot-candles—when the recommended level is 30.<sup>1</sup>

Of much significance and research value is the well known work with 160,000 Texas school children under-

<sup>1</sup>Illuminating Engineering Society Lighting Handbook, 1947, pp. 10 to 76.

taken by Dr. Darell B. Harmon<sup>2</sup> and the Texas State Department of Health. In a survey to determine the causes of physical defects, the children were given thorough pediatrics examinations and nutritional, visual, psychological, educational and other tests.

At the end of a six months' period, after Dr. Harmon and his associates had instituted architectural improvements, including rearrangement of desks, redecorating and new window arrangements, a series of medical, nutritional and visual tests revealed that refractive eye problems were reduced 57 per cent; nonrefractive eye problems were reduced 90.19 per cent; nutritional problems were cut 44.5 per cent; signs of chronic infection were cut 30 per cent.

Dr. Harmon's pioneer work has accelerated the efforts of illuminating engineers, has affected the plans of school architects and has awakened health authorities and educators to the importance of conditioning the pupil's physical environment to enhance his development. Some of Dr. Harmon's recent experiments at the Rosedale School in Austin, Tex., include these factors: (1) fenestration; (2) decoration of floors, ceilings and walls, including chalkboard and draperies; (3) furniture; (4) artificial lighting.

## HEALTH RELATED TO LEARNING

It is now sufficiently clear that school children *have health problems which affect their ability to learn*, and that this incidence may be materially lessened by eradicating environmental classroom hazards.

However, there is a dearth of material on the effects of school lighting on the academic achievement of pupils. Dr. Harmon's research seems to indicate that better results were achieved by an experimental group in an experimental building than by a comparable control group in a control building. Earlier studies to ascertain the effects of classroom lighting upon

<sup>2</sup>Harmon, D. B.: Lighting and Child Development, Illuminating Engineering 40:4 (April) 1945.

educational progress have been reported by Matthew Luckiesh, Frank Moss<sup>3</sup> and W. Allphin.<sup>4</sup>

For the last two years the board of education of the Des Plaines elementary schools, cognizant of the need for a school lighting program for the entire school system, has experimented with decoration, furniture and fluorescent light installations in classrooms.

An experimental room, just completed in cooperation with a manufacturer, presents a new concept in louver lighting.

#### A CEILING OF LIGHT

This system affords an opportunity to obtain ample, well diffused, comfortable and inconspicuous lighting. The louver sections are made of plastic and are translucent. The louver material has a 71 per cent transmission factor and a 19 per cent reflection factor. This translucent characteristic facilitates remarkably high efficiency and gives life and beauty to the ceiling which literally glows with light.

In this classroom, above the new luminous louvered ceiling, are installed eight fixture units in six rows, or forty-eight units, each consuming 100 watts, or a total of 4800 watts. Average foot-candles on desk tops achieved in the room is 103. The foot-candle room average is 115. (See photograph on page 33 for details.)

The translucent louvered ceiling conceals the light source, makes it possible to use high intensities to obtain foot-candle levels where required, and affords an even distribution of brightness.

A decorating scheme for the ceiling, walls and furniture was planned so as to reflect a maximum of light where needed. The wood floor was buffed, cleaned and lightened. The furniture, glass surfaces (with the exception of the windows and clock) and woodwork were finished in flat tones. Desks of a natural satin finish will be installed.

All these factors are in complete harmony with modern classroom working and seating arrangements. Since there is an even distribution of brightness, an informal pupil group-

ing plan which may vary throughout the school day, or from day to day, may be followed.

In any lighting system, the problem of maintenance must be given careful consideration. Since the louver panel material is hard and nonporous, dust does not readily adhere to it. The louvers are easily removed and can be cleaned by dipping into a solution of lukewarm water and a soapless detergent.

No study to date has been completed by us to obtain objective evidence of pupil improvement in health and achievement as a result of the improved physical environment and lighting just described, but observation has led us to believe that there has been improvement in posture, work habits and mental alertness.

The teacher in the room reports that the pupils take an additional interest and pride in their new environment. A calming atmosphere of happiness and security, with little tension, seems to pervade the classroom.

Our board of education and the manufacturing company recognize that this school lighting project is experimental. This classroom presents an unusual testing laboratory in that the lighting technic employed provides greater potentialities than may be actually needed for a normal classroom situation. The lighting intensity of more than 100 foot-candles, for example, naturally has a pronounced effect on the decorating scheme.

#### HOW MUCH INTENSITY?

Then, too, the high illumination achieved brings into sharp focus the unanswered question: How much intensity of light is needed in the average classroom? Dr. Miles A. Tinker, professor of psychology, University of Minnesota, has written a thought provoking, critical analysis of illumination standards.<sup>5</sup> He contends that if the minimum level is maintained at 15 foot-candles or slightly above in classrooms and at 30 foot-candles in sight saving classes or drawing rooms, adequate light will prevail in the school. His solution to the school lighting problem would call for more attention to achieving adequate decoration (painting) and even distribution of light.

Notwithstanding this criticism, the

translucent louvered ceiling as an innovation in school lighting is deserving of careful analysis and further study. As to cost cutting factors, is it necessary to cover the entire ceiling with translucent louvers? Furthermore, if a reduction in foot-candles is feasible, fixture installation and wattage consumption costs would be reduced materially.

#### PROBLEMS WHICH REMAIN

The experience of our board of education and school personnel has indicated some practical problems which will require further study. A few of these problems are:

Technics must be found to interest the public in the benefits of school lighting. In many instances, the public taxpayers will not accept the present cost of fixtures and installation.

Costs of fixtures and installation must be reduced. This is a No. 1 problem.

More research is needed to determine ideal lighting standards for classrooms.

Since high reflection factors are of paramount importance in good school lighting, more research and experimentation are needed for improved chalkboard and/or a formula for coating the conventional blackboard so that a higher reflection factor can be achieved.

The use of blackboards on two or three sides of the room should be evaluated. Perhaps a minimum of blackboard space will suffice. Sanitation as well as lighting is involved.

Continued improvement in flooring materials is needed to produce reflection factors of from 15 to 30 per cent.

A suitable wearing quality paint formula is needed to cover present dark asphalt tile and other composition floors to provide a reflection factor of from 15 to 30 per cent.

Greater supplies of blond or natural finished pupil desks, teacher desks and all other types of school equipment and furniture are needed.

School furniture, other than pupil desks, is now being painted to harmonize with and meet the requirements of particular lighting jobs. Therefore, manufacturers and distributors should provide unfinished furniture for schools following this policy.

The science of school lighting demands careful consideration. Any school embarking upon a school lighting program should seek expert advice.

<sup>3</sup>Effects of Classroom Lighting Upon Educational Progress and Visual Welfare of School Children, Illuminating Engineering 35:10 (Dec.) 1940.

<sup>4</sup>Allphin, W.: Trans. Illuminating Engineering Society 31:739-745, 1936.

<sup>5</sup>Tinker, M. A.: Illumination Standards for Effective and Easy Seeing, Psychological Bulletin 44:5 (Sept.) 1947.



## BEFORE AND AFTER

The photographs above show the combination cafeteria and study hall at the Heights High School, Cleveland Heights, Ohio. The old lighting installation, shown at the top, consisted of twenty-four outlets, one per bay, with a 500-watt lamp in an enclosing globe in each. The approximate intensity of light was between 8 and 10 foot-candles. The photograph below shows the same room after the installation of fluorescent lighting, each fixture having two 40-watt lamps. Eighty-four of these units were mounted directly on the underside of the beams and eighty-two of them were mounted on 18 inch suspension hangers. The average maintained intensities with this new installation is between 39 and 40 foot-candles of light.



# CURRENT TRENDS IN SCHOOL LIGHTING

TRENDS in school lighting can be observed only by studying lighting practice in a large and representative cross section of our nation's schools. One classroom or one school, with the entire ceiling devoted either to skylights or to electric lights, does not constitute a trend or even initiate one. With all of the new and marvelous ways of lighting classrooms, it is a good wager that most of the lighting in classrooms built in 1948 will follow plans which have been in the files for many years.

To study trends, it is well to turn to such a nationwide survey as was conducted and reported by The NATION'S SCHOOLS in 1944. The survey, covering 6356 school systems of 500 enrollment and more, showed the type of postwar products contemplated at that time by representative groups of superintendents and architects. Their ideas on the products listed in table 1 are pertinent to this discussion.

In 1940 a survey covering approximately 20 per cent of the classrooms in the United States was made under the direction of Prof. H. B. Dates. The results of the survey were published in *Illuminating Engineering* 36:49 (January) 1941. At this time the fluorescent lamp was not a factor in school lighting. The data given in table 2 show a definite trend and can be related to those in table 1.

## INDIRECT LIGHTING PREFERRED

It is indicated that in 1940 only 12 per cent of all school lighting installations met the specifications of the 1938 American Recommended Practice of School Lighting, calling for 15 foot-candles and an indirect form of lighting. Yet, two-thirds of the school lighting being done at that time conformed to the specifications. Hence, there was a definite trend away from direct and enclosing globe lighting, which then constituted 85 per cent of all existing installations, to some form of indirect lighting. The data in table 1 covering filament lamp

A paper presented at the second annual School Plant Conference and Suppliers' Exhibition sponsored by the University of Texas at Austin, June 10-12, 1947.

**WILLIAM G. DARLEY**  
Illuminating Engineer and  
Consultant, Austin, Tex.

lighting indicate that this trend continued strong in 1944.

While actual trends must be laboriously uncovered, it is easy to observe the influences which formulate the trends.

Among these influences are the recommendations of commercial groups engaged in the sale of products used in the lighting of schoolhouses. These include the firms supplying plain glass and glass block, blinds and shades, wiring, luminaires (lighting fixtures), lamps, electricity, paint and so on.

The situation would be much simpler if even one group of suppliers would agree on a common recommendation. As it is, neither the industry as a whole nor its component groups exert a common influence. The blind and shade people, the plain glass and glass block people, the electric service people differ among themselves and with the other groups.

## SUPPLIERS INFLUENCE SELECTION

In preparing this article, I discussed the recommendations of a number of electric service companies with their lighting engineers. The companies operate in Southern California and in the larger cities of Texas. In one area, the basic utility recommendation is 4 to 4½ watts per square foot using filament lamps in indirect luminaires. The engineers of this company do not believe in fluorescent lighting and do not recommend it. Their recommendations are having a considerable influence on the trend in the area which they serve.

In another area the engineers do not take a positive stand for either filament or fluorescent (F) lamps, pointing out that the use of these types of lamps is a matter of economics, involving first cost and operating and maintenance costs. It is their contention that each case should be decided upon its own merits. In a third area the engineers start off with the same basic assumption as the foregoing; however,

they have made numerous analyses of costs which have definitely shown F lamps to be the better buy. Hence, their recommendations favor these lamps.

While recommendations for electric lighting vary with different companies and with different groups, in general they are for: (1) the use of filament lamps in indirect luminaires providing 20 foot-candles or more, and (2) the use of F lamps in shielded luminaires providing 30 foot-candles or more.

Another influence affecting the general trend has been the series of school lighting Standards, Codes and Recommended Practices originating with the Illuminating Engineering Society

TABLE 1—1944 SURVEY

Type of Construction	Per Cent of Supts.	Per Cent of Architects
Windows:		
Double hung .....	45	49
Projected .....	48	47
Casement .....	7	4
Glass block (with clear glass windows below) ....	23	18
	123*	118*
Window Shades:		
Single (top) .....	10	19
Single (bottom) .....	1	1
Double (center hung) .....	80	67
Double (top and center) ....	9	13
Window Shade Material:		
Cotton duck .....	61	49
Pyroxylin .....	25	35
Cambric .....	14	16
Venetian Blinds .....	34	40
Lamps:		
Filament (incandescent) ....	51	74
Fluorescent .....	71	52
	122*	126*
Filament Lamp Lighting:		
Indirect .....	40	24
Semi-indirect .....	40	47
Enclosing globe .....	20	29
Fluorescent Lamp Lighting:		
Bare .....	22	27
Covered (shielded) .....	78	73
Fluorescent Unit Mounting:		
Flush ceiling (recessed) ....	42	41
Ceiling (surface) .....	16	17
Pendant .....	30	31
Cove .....	12	11

\*More than 100 per cent because some persons indicated the use of more than one type of construction or lamp.

(I.E.S.) and approved by the American Standards Association (A.S.A.).

The I.E.S. recognized the need for a revision of the 1938 "Recommended Practice" about the time the war started; however, other matters took precedence. The committee which was appointed in 1943 to revise the 1938 bulletin obviously had to labor under severe handicaps. The work was further complicated by differences of opinion among the members of the committee which caused one important member to resign.

After much real effort, the committee completed its final revision and submitted it to the council of the I.E.S. at its April 1947 meeting. At that meeting, the council voted to approve the draft revision for transmittal to the A.S.A. Sectional Committee A-23 for approval as an "American Standard." The book<sup>1</sup> is now off the press.

In contrast to earlier revisions proposed by the I.E.S. committee, in the final revision the lighting levels have been dropped to 30 foot-candles for regular classrooms; fluorescent lighting has been given less emphasis, or fila-

Visual Comfort and Efficiency." The following quotation from the introduction of this subsection will give an idea as to the freshness of viewpoint and the scope of the "Guide."

"More recent emphasis advanced by students of the seeing-in-the-school-room problem has broadened considerably from the narrow foot-candle concept. The relationships of brightness, brightness differences, and total visual fields have supplanted the elementary discussions of foot-candle standards. The problem has shifted from 'how much light should we have' to 'how well can we see.' The relative importance of the factors which constitute a good visual environment in schools has been modified from the realm of opinion centering on light quantity recommendations to the more educationally acceptable concern about the positive correlation between good seeing conditions and the conservation of human resources.

"The philosophy of those who would attempt to claim material educational growth based solely on increased quantities of light at desk-top level has been abandoned for a

as the brightnesses of the task and surroundings are increased.

The "Guide" recognizes the impracticability of achieving a perfect visual environment at this time. Its specifications for brightness differences take full account of the limitations of present thinking and design. Nevertheless, the recommended brightness differences established will have a profound influence upon classroom design and utilization when intelligently interpreted and applied. The "Guide" points out that from 20 to 40 foot-candles are practically available today for schoolrooms.

#### MUST MEET EYES' DEMANDS

The greatest influence on trends is and has always been one of the before-mentioned fundamental requirements of the eye for visual comfort and efficiency, *i.e.* the requirement that the task be as bright as or slightly brighter than any surface in the surrounding visual field. In the past, whenever this brightness difference was sufficiently out of balance to cause complaint, the condition was called direct glare. A secondary influence has been the ill effect of reflected glare.

All of the developments seeking to improve the *quality* of lighting and the resultant trends toward improved quality have been stimulated by these influences. This fact, however, was never even grasped until recently, with the result that progress toward the ideal lighting quality has been haphazard, with many a wrong turn being taken.

This has been because the motivating factor in lighting practice up to this time has been the desire to increase foot-candles. The development of new types of lighting hinged more on their ability to produce higher foot-candles with some reduction in visual discomfort compared to preceding types, rather than upon their conformance to principles which would assure the maximum visual comfort and efficiency being available for any foot-candle level chosen.

To observe the effects of the influences of our inherent rebellion against direct and reflected glare, let us trace the more obvious pattern of the development of lighting practice employing the filament lamps. Each step represents some improvement over the preceding one and this has made possible higher foot-candles. Each type has been, in turn, superseded as the

TABLE II—1940 SURVEY

Compliance with 1938 Recommended Practice of School Lighting

Type of Installation	Per Cent Complying
All existing installations .....	12
Installations in new schools.....	66
Relighting installations in old schools.....	67
Types of Luminaries	Per Cent of Total
Indirect .....	5
Semi-indirect .....	10
Enclosing Globe.....	70
Direct .....	15

ment lamp lighting has been given more, and the "brightness" approach (which some of us think is so important) has had more space devoted to it.

A new and vital influence on trends will be the recently revised "Guide for Planning School Plants" developed by the National Council on Schoolhouse Construction.<sup>2</sup> The subsection dealing with lighting is appropriately titled "Conditioning Schoolrooms for

more acceptable approach which takes into consideration the entire visual environment as it affects the physical, mental and emotional welfare of students.

The "Guide" bases its suggestions on the fundamentally and fully accepted facts that:

1. Visual comfort and efficiency are at a maximum for a given level of illumination when the brightnesses in the surrounding visual field are approximately the same as the average brightness of the task (such as this page).

2. With good "brightness balance," visual comfort and efficiency improve

<sup>1</sup>IES Lighting Handbook, the Standard Lighting Guide, 1947. Illuminating Engineering Society, 51 Madison Ave., New York City 10.

<sup>2</sup>Available at \$1 from H. C. Headden, State Department of Education, Nashville, Tenn.

number of foot-candles has risen. The listing does not include a type designed to provide the optimum brightness balance in the visual environment at all foot-candle levels.

1. In the beginning, there was the bare lamp. It was a source of excessive direct and reflected glare.

2. A shade, dropped over the lamp, followed. This made a considerable reduction in direct glare but did not affect the reflected glare of the bare lamp.

3. The enclosing, diffusing globe was the first real "fixture." It reduced the reflected glare. The brightness of the globe was higher than that of some shades; however, the globe concealed the bare lamp at all angles in the normal field of view whereas the shade did not. Hence, depending upon the installation, the enclosing globe may or may not have been an improvement over the shade from the standpoint of direct glare.

4. The semi-indirect luminaires which followed provided reductions in both the direct and reflected glare effects when well designed.

5. The indirect luminaire is the last step toward quality lighting with filament lamps which has been used generally. Indirect luminaires (both luminous and opaque) provide even further reductions in direct and reflected glare. While the brightness differences present with indirect lighting are reasonably satisfactory in classrooms lighted to 20 or 30 foot-candles, they often become unsatisfactory at higher illuminations. (There have been further developments in lighting techniques using filament lamps where higher foot-candles were a requirement.)

The quality of lighting provided by bare F lamps approximates that provided by enclosing globes. It is heartening to observe the indication in table 1 that both superintendents and architects appreciate this fact. Approximately 80 per cent of the superintendents and 70 per cent of the architects favor neither enclosing globes nor bare F lamps for classrooms. I interpret this as meaning that those who have progressed beyond the enclosing globe stage reject the use of the bare F lamp. On the other hand, when wisely applied, the F lamps make possible the achievement of environments conditioned for visual comfort and efficiency.

There seems to be some confusion currently with regard to the place of iron electrode F (fluorescent) lamps in classrooms. I prefer the term "iron electrode" to the more commonly used "cold cathode," since for a given arc current, an iron electrode (*cold cathode*) produces *more heat* units than a tungsten electrode (*hot cathode*), that is, the cold is hot or the hot is cold. The confusion seems to arise principally because the iron electrode F lamps have been used so consistently to provide one fashion of lighting that this fashion has become known as "cold cathode lighting."

#### TERMS DEFINED

The phrase "cold cathode lighting" is an abbreviation of "lighting with cold cathode F lamps," or preferably, "lighting with iron electrode F lamps." The phrase "fluorescent lighting" unfortunately has been too much reserved for "lighting with tungsten electrode F lamps."

Since the two types of lamps are often coated on the inside with the same phosphors and can be operated in series and, in fact, since the optical characteristics of the lamps with the two types of electrodes can be made identical, it is apparent that fundamentally there can be no difference in the *lighting* provided by the two types of sources if they are applied in the same fashion. In other words, the application of iron electrode F lamps bare on the ceiling comes under the classification of lighting with bare F lamps. The utilization of iron electrode F lamps in shielded equipment comes under the classification of lighting with shielded F lamps. There is nothing mystical about either type of electrode so far as results are concerned.

Because of the confusion, there has been some tendency to compare on an even basis one fashion of lighting provided by iron electrode F lamps to an entirely different fashion of lighting using tungsten electrode F lamps. It is a bit like saying, a cow is a better cow than a horse is. Where it is desirable to make comparisons between the lighting effectiveness of the iron and tungsten electrode F lamps, it is essential first to make sure that the sources are being employed to provide similar qualities of lighting. Thus, it would appear that the place of iron electrode F lamps in the classroom is in those acceptable fashions of light-

ing in which they have an advantage economically.

A discussion of the influences affecting trends cannot be complete without reference to that ever present influence: *cost*. Obviously, cost is not the sole controlling factor. If it were, we would simply do without lighting, since lighting in any form and of any quality costs money.

The amount of money spent for lighting is largely an indication of the appreciation by a board, a superintendent or an architect of the need for conditioning schoolrooms for easy and efficient seeing. Unfortunately for many children, great numbers of schoolhouse planners still think that a light is merely a light and that the cheaper it is, the better. This sad situation will continue sorely to influence trends until enough educators and planners grasp what a tremendous contribution lighting can make to the student's well-being and to the educational process.

With regard to the ultimate form which lighting will take, the influence of design is important. In this connection, an analogy drawn by Dr. Jeffries, vice president and manager of the Plastics Department, General Electric Company, is pertinent. Dr. Jeffries points out that in earlier days we heated spaces with large, wood-burning stoves set well out into the room and connected to a flue by an unsightly pipe. I remember such a stove in my boyhood home. I also remember the succession of improvements which paraded through our rooms until finally the fire itself was relegated to the basement and the actual source of heat in the room was made as inconspicuous as possible.

Probably the difference in cost between the pot-bellied wood stove and the furnace, duct and grille work of the modern heating system would astound one. Yet, in most spaces where heating is a real problem, the modern system is considered to be worth the cost. Dr. Jeffries' opinion is that in time the lighting in our work world will become relatively as unobvious as our heating systems.

When schoolhouse spaces are so treated generally and quality lighting is supplied for the task, we can be sure that we will have achieved a classroom environment which is conditioned for visual comfort and efficiency.



# Comparisons In Classroom Lighting

Based on Experiments With Different Types of Fixtures in One School

FRED W. HOSLER

Superintendent, Allentown, Pa.

J. CHESTER SWANSON\*

Formerly Assistant to the  
Superintendent, Allentown, Pa.

**WE** HAVE the same problem that is common to many school systems in America, namely, adequate artificial lighting. On a dull day when the lights are on, our classrooms will average about five foot-candles in the

center area of the room. We realize that this is far too little illumination for proper reading and studying.

The solution, however, is not easy or inexpensive. If we were to raise the level of illumination by adding

more efficient fixtures with higher wattage output, it would be necessary to rewire our schools completely. This would be very expensive. The only possible solution, other than rewiring, is the use of fluorescent fixtures. With this as the background of our thinking, we decided to install fluorescent lights in seven classrooms.

All available material on fluorescent fixtures and their adaptation to classrooms were studied. Several extensive trips were made to investigate fluorescent lighting in schoolrooms and commercial establishments. The initial step was to consult local lighting jobbers and ask them to have their illuminating engineers suggest what they considered the best possible type of fluorescent lighting for classrooms.

We then purchased and installed fluorescent lights in seven classrooms on the north side of a junior high school. These rooms are 30 feet long and 23 feet wide. We attempted to obtain every practical type of installation which was then available.

We have fixtures mounted against the ceiling. We have suspended fixtures, fixtures in long rows, fixtures parallel to the windows, fixtures vertical to the windows. We have regular fluorescent lights; we have the cold cathode and the thin line types. Some are instantaneous starting, others delayed starting. We have fixtures with shields, with egg-crate louvers, with single vertical shields, and with reflectors, and we have tubing with no fixture except sockets. These various combinations have given us information about the types of lighting available. The accompanying illustrations show the six types of fixtures used. It is difficult to give an idea of the total cost of each including the cost of installation, because the fixtures were custom-built at the time of their



FIG. 1 — Regular fluorescent, suspended fixture, two tubes per fixture, seven fixtures in two rows, egg-crate louver shielding, semi-reflecting. Provides 30 foot-candles of light on desk at center of the room. This type of fixture supplied by a different company is used in a second room.



FIG. 2 — Slim line fluorescent, four rows, two fixtures per row. Vertical diffusing fins parallel to tubes as shields, four tubes per fixture, ceiling mounting. Provides 65 foot-candles on a desk in the center of the room.

\*Now Business Manager, San Diego Public Schools.



FIG. 3 — Cold cathode lights, having bare tubes, no reflector, no shields, no fixture, four tubes per row. This type of lighting provides 35 foot-candles of light on desk in center of the room.



FIG. 4 — Regular fluorescent, seven fixtures, diffusing side shield, egg-crate louvers, suspended from ceiling, no reflector, four tubes per fixture. Provides 40 foot-candles in center of room.



FIG. 5 — Thin line fluorescent, bare tubes, suspended from ceiling, no reflector, six tubes per fixture, four fixtures. Provides 55 foot-candles of light on a desk in the center of the classroom.

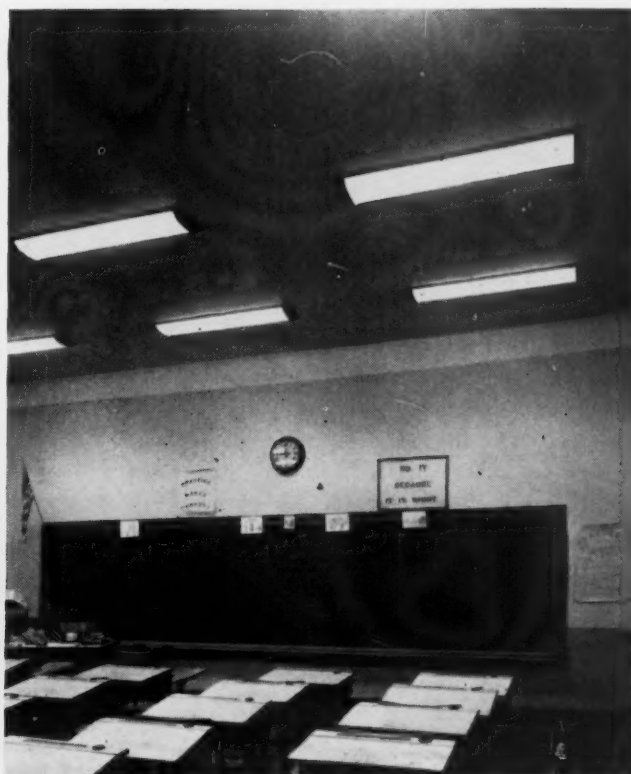


FIG. 6 — Regular fluorescent, flush ceiling mounting fixture with glass lens, twelve fixtures with two tubes per fixture. Provides 40 foot-candles of light on a desk in the center of the classroom.

installation and some of them are now standard fixtures and can be bought for much less than our original installation price. The costs of our custom-built fixtures ranged from \$350 for the cold cathode lights shown in figure 3 to \$646.21 for the fluorescent lights shown in figure 6.

The conclusion from this experiment is probably the item of major interest. It is the most difficult part to report. The experiment was a disappointment in the fact that it did not definitely and specifically point to a single, most satisfactory solution to our problem.

We have, however, obtained the following valuable information: (1) Relighting 600 classrooms is going to be an exceedingly expensive problem.

(2) The ordinary fluorescent fixture with its delayed starting is annoying in a classroom because it detracts the attention of the class at the time of turning on the lights. (3) Considerable shielding is definitely necessary in all fixtures, even those with a low surface light intensity. (4) A type of fixture with vertical surfaces and vertical louvers greatly decreases the maintenance problems for building custodians.

Opinions expressed by teachers, architects and school administrators have been so varied that we can give only some of our own personal reactions. Our ideas may change as the various installations are observed more in detail. As a result of this experiment we would prefer a classroom lighted

with a slim line fixture suspended from the ceiling, with no reflector in the fixture and with an egg-crate louver suspended below the tubes. We would prefer only four such fixtures to the room, with six tubes to each fixture.

Our reasons for such preference can be summed up as follows: (1) These are instantaneous starting fixtures. (2) They give complete shielding. (3) They provide a minimum surface for the collection of dirt. (4) They have extremely long life. (5) With only four fixtures per room, they are one of the cheapest installations.

However, we agree in general with the statement that the ideal fixture for classroom lighting has not yet been developed.

## Optometrists to Test Theories of Lighting

Wisconsin Association Will Measure Effect on Children's Eyes and Scholastic Achievement

WHEN the Wisconsin Optometric Association offered to equip a schoolroom in accordance with the principles of classroom lighting developed by Darell B. Harmon, the Teachers College at Oshkosh, Wis., accepted. Dr. Harmon himself came from Texas to prescribe the changes to be made in the sixth grade room in the training school of the college to make it conform with his experimental rooms as they had been developed in his home state.

The woodwork and end walls of the experimental room at Oshkosh are now painted ivory and the wall opposite the windows is painted a gray-tan. The ceiling and a 2 foot drop on all walls are painted with white paint having a high percentage of reflectivity.

### DEFLECTORS ARE USED

Two rows of deflectors are hung at a 45 degree angle along the top and middle of the windows. These deflectors are covered with a glass fiber cloth which transmits some light and also reflects light to the ceiling from which it is again deflected to the inside of the room. All shades have been removed from the windows except for a very thin shade over the bottom third of each window. This

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is pulled down only when the direct sunlight is coming in.

In the afternoon of a sunny day there are 25 or 30 foot-candles of light along the inside wall and about 50 or 60 foot-candles of light along the outside wall.

### HOW LIGHTS ARE ARRANGED

The artificial lights in the room consist of three rows of continuous fluorescent lights. These are arranged with the inner row about 4 feet from the inner wall and with 6 feet between the rows. In the morning, the inner row and the front half of the middle row of lights are needed to supplement the natural daylight. The artificial lights alone give 55 foot-candles of light. Eighty-five per cent of the artificial light is reflected from the white ceiling and only 15 per cent is transmitted through the fixtures.

The top of each desk is tilted at an angle of 20 degrees from the horizontal and each desk is set in a curved row in such a position that a perpendicular line to the back of the desk makes an angle of 50 degrees with a line to the front edge of the front window.

The purpose of these changes is to

obtain enough light; to have it come at such an angle that it will not shine directly in the eyes of any pupil, and to enable the pupil to sit in a comfortable position while studying.

Intelligence and standardized achievement tests were given to both the experimental sixth grade room and a fifth grade control room (which is a duplicate of the remodeled room) during the second month of school. Similar tests will be given six months later to measure the achievements in the two rooms.

The optometrists are making a careful study of the eyes of each child in both rooms and will give similar tests at the end of six months. Dr. Harmon found a pronounced decrease in defects of the eyes of pupils in his experimental rooms in Texas and the optometrists are making a very careful check in the Wisconsin experiment.

### EXPERIMENT WILL BE REPEATED

The teachers and grades will be shifted next year and the experiment will be repeated. Each teacher, then, will teach two groups of the same grade—one in the control room and the other in the experimental room. A complete report on this experiment will, therefore, not be available until the summer of 1949.



# Financing the School Lunch Program

**D**ESPITE all the evidences of progress, the national school lunch program is in an unsatisfactory condition, financially and operationally. Most school children do not receive a sanitary, attractively prepared and served lunch which meets the daily one-third of the nutritional requirements of a child. Most school lunchrooms are either understaffed or staffed with inadequately trained personnel. Thousands of schools have no lunch facilities. Supervision is inadequate in most states at both state and local levels.

This evaluation is not intended as a criticism of the U.S. Department of Agriculture, the state departments of education, local administrators or teachers. To the contrary, everyone concerned with the program has done a magnificent job, considering the hit and miss method of financing we have provided for it. We are now at the crossroads, however. The national lunch program is too big to be financed and administered any longer as it is now.

## WHAT IS THE WAY OUT?

What is the way out of our present situation? What parts should the federal government, the state and the local school units play in financing the school lunch program?

Many states have found their overall plan for financing all phases of education to be inadequate. In 1941 representatives from fourteen Southern and Border States at a Southern States Work Conference prepared a statement of the principles which have evolved in the financing of public education. [These were in part as follows.]

1. Public education is the responsibility of the state, local and federal governments. Each must assist with its financing. Changes in our social and economic systems may well imply a continued increase in the proportion of the financial support provided by the federal government and by state governments.

2. Funds from all sources should

Abstract of a talk delivered before the Food Service Association in Dallas, Tex.

## Abstract of Address by

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be pooled in one general fund by the local school unit and expended subject to such controls as required by the state. Revenues from state, local and federal sources should lose their identity in the local school fund and be applied to the general educational program. The school unit should not be required to make three budgets, one for federal, one for state and one for local funds, with each subject to controls and audits by its respective authority.

3. The federal government should deal only with state authorities in making funds available for the public schools. It may properly approve the plan of state apportionment of federal funds to the end that an adequate education be provided for all children. But this control should be limited to reports required of state educational authorities and an audit of the records of the state to the end that the general purposes of the federal statutes are carried out by the states. The government should not determine the types of educational programs provided in the schools. Nor should the states set up special appropriations earmarked for specific purposes.

4. The responsibility for the administration of the financial and educational programs should be vested in the local school unit, subject to safeguards set up by the state for maintaining standards.

5. An adequate foundation program of education should be provided. For this purpose, wealth should be taxed wherever it is found. An adequate foundation program should be balanced. The budget should provide for all necessary educational services.

6. The foundation program should provide for competent personnel, state and local, for adequate supervision, for good budgeting procedures, and for adequate accounting, auditing and reporting.

7. The financial program should be flexible so that educational programs

may be adapted to the needs of local schools.

8. Sources of revenue should be stable enough to provide for longtime planning but flexible enough to provide for normal expansion of educational needs.

9. Such controls as are exercised by central agencies should not operate to retard progress but rather to prevent backward steps.\*

When we evaluate the present plans for financing the school lunch program in terms of these principles, we find that they fall short of the goals indicated. Neither the federal government nor the state nor the local school unit is assuming its responsibility with respect to financing the school lunch; such funds as are available for it are generally earmarked and surrounded with objectionable types of control; the lunch program is not generally included in the foundation program which the state supports; provisions have not been made for competent personnel, necessary supervision, and sound accounting procedures; the financial program is not flexible enough to take care of expanding needs, and the sources of revenue are unstable.

## TRENDS ARE EVIDENT

State plans for the financing of education are, however, rapidly being improved. As they develop, certain trends are evident:

1. A larger proportion of the school revenue is being provided from state sources.

2. The states are abandoning the earmarking of funds for special projects in favor of a general overall appropriation for the foundation or minimum program of education provided for each child.

3. The states are expanding their definition of the foundation program to include all necessary phases of the educational program. Many which in previous years have included in their foundation programs only funds for teachers' salaries and transportation

\*State and Local Financing of Schools, Improving Education in the Southern States, Southern States Work Conference, Bull. No. 1, 1941.

are now including allotments for other items of current expense and capital outlay.

4. Most states require local school units to make a stated minimum local tax effort toward the support of their schools before participating in state funds. Most states are taking into consideration variations in educational needs and the taxpaying ability of local units in distributing state funds.

No two states have developed identical plans for financing their schools. Each finds it necessary to tailor its own plan in accordance with its needs.

Improved patterns for the financing of public education are being developed throughout the United States. One of the most promising is the foundation program plan of support which has recently been adopted by a number of states. Under that plan a state calculates the cost of all phases of education and each local administrative unit is required to make a uniform minimum local tax effort toward the cost of that program. If the funds available therefrom in any unit are insufficient for the state foundation program, the difference in the cost is paid from the state treasury. Such a plan calls for the abolishment of all earmarked appropriations and their consolidation into one public school fund to be distributed on the bases of educational need and taxpaying ability.

#### FOUNDATION PROGRAM PATTERN

Where does the financing of a school lunch program fit into this pattern? Let us examine the technics of the foundation program pattern.

1. The need for teachers' salaries is usually calculated in terms of teacher units based on school attendance.

2. The need for transportation is usually based upon the total number and the distribution of children to be transported.

3. The need for other current operating costs is usually based upon the teacher unit.

4. The need for capital outlay is frequently based upon the same unit.

These budget items and perhaps others are all totaled to make a budget allotment for each local school unit. Its share of state funds is determined by deducting its local required tax effort from the cost of the total program and the difference is paid from

the state treasury. This pattern lends itself to the inclusion of the cost of school lunches in the state financial program. It could be included just as readily as transportation is included. For instance, it could be based on the number of children served in the same way as transportation aid is based primarily on the number of children transported.

Provision for the capital outlay needs of the school lunch program should be included in the foundation program in the item which cares for all other capital outlay needs. The current expense costs of the school lunch include food, labor, supervision, utilities and so on. It is estimated that the food and labor costs of a school lunch today are at least 25 cents. There are some who argue that the entire cost of the lunch program should be paid from public funds. Others believe that parents should pay the food costs and that all other expenses should come out of tax funds.

#### AMOUNT PER CHILD PER YEAR

If the state includes the entire current expense cost of the school lunch in the foundation program, it would have to provide approximately \$45 a child per year. In a state serving lunches to 400,000 children, this would require \$18,000,000 annually. If the state assumes only the nonfood costs, it would include in the foundation program only approximately one-third of this amount.

At the present time it would seem reasonable to recommend that all states finance at least the nonfood costs. Federal aid in the form that we are now receiving it is likely to be of more harm than benefit to the lunch program. The detailed accounting required and the types of federal control now being exercised are prejudicing many people against federal aid for education.

We are likely to restrict our financing of the school lunch program, insofar as tax funds are concerned, to the matching of funds and let it go at that. Students of school finance are generally agreed that the federal government could be of more assistance in improving education if it would abolish all special appropriations and provide in lieu thereof a general appropriation for all public school purposes substantially larger than the total of the special appropria-

tions now available. Such a general appropriation should be distributed on the bases of educational need and the taxpaying ability of the states.

Until this Utopia is achieved, the following procedures are suggested:

1. Each state should establish a foundation program of education, encompassing all needs, including the school lunch.

2. The foundation program should be financed either jointly by the state and local school units or entirely by the state. When the former is done, the state pays the difference between the cost of the foundation program and the amount required to be raised locally as determined by a uniform equalized local tax effort.

3. The amount included for the school lunch program should be at least equal to the nonfood costs.

4. As long as earmarked federal appropriations are available for the lunch program, these funds should be used to supplement the state foundation program in accordance with the laws and regulations governing federal funds.

### Lunchroom Standards

A study of school lunches was made a major project of the 1947 Southern States Work-Conference on Educational Problems. The objective was to develop a guide toward the development of a handbook which will help to bring about a more satisfactory policy and standards assuring an adequate lunch program as an integral part of every school.

This now appears in booklet form titled "School Lunchroom Policies and Standards" under the authorship of Thelma Flanagan, supervisor of school lunch program, State Department of Education, Tallahassee, Fla., and Ruth M. Kean, state supervisor, school lunch division, State Department of Education, Baton Rouge, La.

Some indication of the scope of the work is indicated by such section titles as: "Basic Considerations," "Educational Aspects of School Lunch Program," "Organization and Administration," "Food Service Facilities," "Personnel," "Finance," "Evaluation" and "Summary and Recommendations." The survey was conducted under the state departments of education and state associations of the South.

# Names IN THE NEWS

## SUPERINTENDENTS

*Leon Wagner*, superintendent of the Windham Central School District in Vermont, has been elected superintendent of the Bennington Southwest District, which includes seven towns. He is succeeding *Harry N. Montague* who was elected superintendent of the Belows Falls district.

*J. Wilbert Jones*, supervising principal of the Red Hook Central School, Red Hook, N.Y., has resigned his position, effective June 30, to become superintendent at Southampton, L.I.

*Marion E. Shank*, former principal of the Galion Junior High and West Elementary School, is now superintendent of schools at Galion, Ohio, succeeding *M. A. Povenmire*. *J. Harold Blosser*, superintendent of the Salem Township schools at Upper Sandusky, Ohio, has succeeded Mr. Shank as principal of the Junior High School.

*G. H. Marshall*, superintendent of schools at Ottawa, Kan., will retire in August. *Henry A. Parker*, principal of the junior-senior high schools, will succeed him and *Leroy Hood* will become principal of the high schools.

*Alfred G. Amundsen*, field representative for the Michigan Education Association, has accepted the position of superintendent of schools at Marlette, Mich., succeeding *J. Merlin Wolfe*, now superintendent at St. Joseph.

*A. D. Brainard*, formerly assistant superintendent in charge of business at Muskegon, Mich., is business manager at Dearborn, Mich.

*G. E. Roudebush*, superintendent at Columbus, Ohio, was elected president of the Schoolmasters' Rotary Club at the annual meeting of that organization at Atlantic City.

*Fred C. Fischer*, superintendent of schools of Wayne County, Michigan, was given an honorary doctor of science in education degree at the midyear commencement exercises of Wayne University. Dr. Fischer became the first county superintendent in Michigan when he was elected in 1935. He has endorsed and directed numerous campaigns designed to improve teacher service in Wayne County schools and

to provide public health and health education service, and has been active in many educational organizations, national, state and local.

*Edwin J. O'Leary*, superintendent at Oglesby, Ill., has been named successor to *George T. Wilkins* as superintendent at Madison, Ill. Mr. Wilkins resigned to devote full time to his duties as superintendent of schools in Madison County.

## SUPERVISING PRINCIPALS

*Ralph W. Perry*, principal of the New Hartford Grade School, New Hartford, N.Y., until July 1, 1947, and since then acting principal of the New Hartford Central School, has been appointed supervising principal of the latter institution. He succeeds *Leon H. Westfall*, who resigned last year.

*Charles B. McCune*, supervising principal of the central school at Candor, N.Y., has announced his resignation to become effective July 1. Mr. McCune plans to go into business. He will continue to reside in Candor.

*T. R. Townley*, assistant chief of vocational rehabilitation and education with the Veterans Administration at Watervliet, N.Y., for the last two years, has been named supervising principal of the Broadalbin Central School, Broadalbin, N.Y., succeeding *Charles W. Paris*. Mr. Townley was for sixteen years supervising principal of Stillwater and Schuylerville schools.

*Harold W. Forbes*, high school principal at Schroon Lake, N.Y., has been elected supervising principal of Whitesboro Central School, Whitesboro, N.Y., succeeding *Frederick Dubois* who resigned several months ago.

*Herman L. Vaughan*, principal of the Senior High School at Ballston Spa, N.Y., has resigned to become supervising principal of the Brockport Central School, Brockport, N.Y. He is succeeded by *Richard C. Tefft*, formerly principal of the Irondequoit High School at Ballston Spa.

## PRINCIPALS

*Charles E. Bish*, associate professor of education at George Washington University, Washington, D.C., has been ap-

pointed principal of McKinley Tech Senior High School. He will continue to lecture at the university on Saturdays.

*James F. Elton*, principal of the High School of Commerce, Portland, Ore., for twenty-nine years, has retired.

*George L. Hawkins*, principal of the Buder and Kennard Schools in St. Louis, has retired after fifty years of teaching.

*Chester H. Katenkamp*, principal of the Patterson Park Junior-Senior High School, Baltimore, Md., on March 1 became principal of Baltimore City College, the third oldest public high school in the country. He succeeds *Philip H. Edwards* who is retiring after sixteen years. *G. Gordon Woelper*, who has been principal of the Veterans Institute and the Junior College, will succeed Dr. Katenkamp at the Patterson Park school. Hereafter the Veterans Institute and Junior College will be administered by the principal of City College.

*T. C. Olsen*, formerly superintendent of schools at Estelline, S.D., is now principal of the high school and science instructor at Howard, S.D.

*Richard H. McFeely*, headmaster of Friends Central School, Philadelphia, will become principal next fall of George School, Bucks County, Pennsylvania. He succeeds *George A. Walton*, who has served for forty years as teacher and principal and who will retire.

*Joseph Brooks Shane*, dean of George School, Bucks County, Pennsylvania, for the last twelve years, has been appointed headmaster of Oakwood School, a 200 year old Quaker preparatory school at Poughkeepsie, N.Y. *William J. Reagan*, headmaster of Oakwood for thirty-one years, will retire in June.

*Howard E. Bain*, principal of the Wyoming Central School, Wyoming, N.Y., next fall will become principal of Oakfield High School at Oakfield, N.Y. He will succeed *Harrison E. Williams* who is retiring at the end of the current year, after twenty-six years in that position. Mr. Williams has been a principal during his entire thirty-six years in education.

*A. H. Chapman*, principal of the Winchester Community High School,  
(Continued on Page 82.)



# "RELEASED TIME" UNCONSTITUTIONAL



**R**ELEASED time" for religious education during the school day and in the school building is unconstitutional. The United States Supreme Court, in an 8 to 1 decision, ruled that the particular form of released time practiced in Champaign, Ill., is illegal under the First and Fourteenth Amendments of the United States Constitution.\*

In 1940, the board of education of Champaign gave its permission to a Council on Religious Education (composed of Protestants, Jews and Catholics) to offer religious education for one-half hour in the elementary schools above the fourth grade and for three-quarters of an hour in the junior high schools. Instruction was provided in the regular schoolrooms during the regular school day to pupils whose parents signed consent cards distributed by the regular teachers.

## TEACHERS PROVIDED BY COUNCIL

Religious teachers were provided by the council, without cost to the school board, although these religious instructors were subject to approval and supervision by the superintendent. Pupils who did not participate in such religious education were required to leave their rooms and go elsewhere to continue their regular school work. Those released for religious education were required to attend religious classes, and a record of their attendance was sent to the regular teachers.

Suit was brought by a mother of a 10 year old pupil, who asked the court to direct the school board to prohibit such religious instruction. The mother, an atheist, claimed her son, who was the only nonparticipant, had been jeered at and humiliated for nonparticipation. The regular teacher re-

## HARRY N. ROSENFELD

Assistant to the Federal  
Security Administrator

mained at her desk while religious instruction was being given.

The court's opinion was rendered by Justice Black. He said that the facts "show the use of tax supported property for religious instruction and the close cooperation between the school authorities and the religious council in promoting religious education. The operation of the state's compulsory education system thus assists and is integrated with the program of religious instruction carried on by separate religious sects. Pupils compelled by law to go to school for secular education are released in part from their legal duty upon the condition that they attend the religious classes. This is beyond all question a utilization of the tax established and tax supported public school system to aid religious groups to spread their faith. And it falls squarely under the ban of the First Amendment. . . ."

This program, said Justice Black, breached the wall which must separate Church from State. Not only are school buildings used for "the dissemination of religious doctrines," but "the State also affords sectarian groups an invaluable aid in that it helps to provide pupils for their religious classes through use of the State's compulsory public school machinery. This is not separation of Church and State."

## NOT ALL RELEASED TIME BANNED

There were two concurring opinions. Justice Frankfurter was joined in one of them by Justices Jackson, Rutledge and Burton. All four had dissented in the *Everson* case, which permitted a New Jersey school board to reimburse parents for carfares to send their children to parochial schools on regular public buses. An extensive analysis of the history of religious education in America and of released time led these four judges to agree with the court's ruling: "Illinois has here authorized the commingling of religious with secular instruction in the public

schools. The Constitution of the United States forbids this."

These judges carefully noted, however, that their concurrence was based on the particular facts of the Champaign case. The constitutional vice, as these four judges saw it, in the Illinois case was that religious education, so conducted in school buildings and on school time, was "patently woven into the working scheme of the school." "The result is an obvious pressure upon children to attend" and thus "actively furthers inculcation in the religious tenets of some faiths and, in the process, sharpens the consciousness of religious differences."

That "the momentum of the whole school atmosphere and school planning" was thus put behind religious education was its basic constitutional defect. The constitutional trouble here was that the school authorities sponsored and effectively furthered religious beliefs by the particular form of released time in practice.

## OTHER FORMS MAY BE VALID

These four judges went out of their way to point out that other forms of "released time" may be constitutionally valid. Justice Frankfurter seems almost specifically to approve of "dismissed time" under which the school day is shortened to allow all children to go where they please, leaving those who so desire to go to a religious school.

The other two judges who filed opinions, one concurring and one dissenting, stressed the likelihood of a flood of cases resulting from the decision. Justice Jackson's concurrence seemed reluctant. He objected to the court's failure to establish some limits on the kind of cases it would be willing to review and warned that judicial elimination of everything which seemed to some people religious in nature would leave public education "in shreds." He could not see how sacred music could be eliminated from music courses, cathedrals from architecture, or Bibles from English classes.

Justice Reed disagreed with the court's ruling. For him, released time was merely a "friendly gesture be-

\**People ex rel McCollum v. Board of Education, Champaign County, March 8, 1948.*

tween Church and State." He did not regard the school board's action in the case as an establishment of religion illegal under the Constitution, or as aid to religious groups performing ecclesiastic functions.

"The mere use of the school buildings by nonsectarian groups for religious education ought not to be condemned as an establishment of religion." Nor was the release from school attendance illegal, because there was no legal duty to attend in view of the school board's excuse from regular school. The history of American education, according to Justice Reed, and the accepted habits of our people were constitutional justification for the Illinois school board's practices.

#### OPINION LIMITED IN SCOPE

That many further cases will spring from this opinion, as forecast by Justices Jackson and Reed, seems more than likely. Justice Black's opinion, for the court, relied on two factors: the use of the school buildings, and the impingement upon the school day. This fact as well as Justice Frankfurter's specific limitation of the case's ruling to situations in which religious education was given both during the school day and in the school building, and his seeming approval of "dismissed time," is likely to lead to attempts to avoid the decision and to efforts to extend it to other areas. It is instructive to see how Justice Reed, in his dissent, interprets the court's opinion. He says:

"From the tenor of the opinions I conclude that their teachings are that any use of a pupil's school time, whether that use is on or off the school grounds, with the necessary school regulations to facilitate attendance, falls under the ban. . . . I can only deduce that religious instruction of public school children during school hours is prohibited . . . that children cannot be released or dismissed from school to attend classes in religion while other children must remain to pursue secular education."

During the argument in the case, Justice Burton asked counsel for Mrs. McCollum whether a decision banning Illinois' released time for instruction in school buildings would necessarily apply to New York's released time for religious instruction out of school buildings. Counsel replied: "No." (Justice Burton joined with

Justice Frankfurter in carefully accepting "dismissed time" from the effect of the court's opinion.) It remains to be seen who was right as to which is the basic element—use of the school building, or use of the school day—or whether both together are

necessary to render religious education unconstitutional. As Justice Frankfurter so aptly said: ". . . the mere formulation of a relevant constitutional principle is the beginning of the solution of a problem, not its answer."

## GROUP THINKING DEMONSTRATED

Association for Supervision and Curriculum Development  
Tries Large-Scale Participation at Cincinnati Meeting.

TO DEMONSTRATE group thinking as a method of participation in convention or classroom was the basis of a large scale experiment conducted recently by the Association for Supervision and Curriculum Development, N.E.A. The occasion was the group's annual meeting in Cincinnati, February 15 to 18.

Members had a voice in evaluating the work of standing committees when these groups explained their purposes and projects at open hearings. They also had an opportunity to choose one major problem out of fifteen in the field of supervision and curriculum development, and to follow it through in three study sessions.

In fact, the conference revolved around the series of fifteen discussion groups. The topics resulted from recommendations offered by the membership at the last annual meeting and from study of program data of various meetings held since then. The speaker-audience situation was avoided by the selection of leaders who had the ability to draw out discussions.

The problems selected by the various groups for study in three consecutive sessions included: teachers and child development, critical problems which children and youths must face, group processes and discussion technics, better teaching situations, organizing individual school staffs for curriculum improvement, education's worldwide responsibility, grouping and group living, school-community relations, meeting tensions in human relations, experiences for better teaching, organizing school personnel for administering the school improvement program, using tools for learning, evaluating school programs, and organizing the curriculum for better living and learning.

The convention opened Sunday

afternoon with an organization period at which group leaders, discussion leaders and resource persons met to plan for wide participation of conference attendants.

"Educational Leadership for Our Times" was the subject of the address that evening by Ernest O. Melby, dean of the School of Education at New York University. The problems enumerated were considered in the panel discussion which followed and which served to point out issues that group discussion leaders would confront later.

The work conducted by the association's committees during the year was reviewed and evaluated at open hearings Monday morning. Members had an opportunity to make suggestions or to express opinions of the projects explained. Long and short term assignments of the following committees were heard: publications and advisory editors; appraisal and plans; legislative; committee of twelve, state representatives to the board, and state chairmen; research; public relations; materials of instruction; community school, research; 1949 and 1950 yearbook committees, and supervision's leadership role.

Monday evening members assembled for the second general session to hear the address of Hollis C. Caswell, Teachers College, Columbia University, on "Speeding Curriculum Improvement."

Sumner T. Pike, of the U.S. Atomic Energy Commission, explained the "Imperatives in Atomic Understanding" on Tuesday.

The democratic procedure also marked the close of the convention when the association held an open discussion for an evaluation of the entire convention.—*Information supplied by LESTER B. BALL, superintendent, Highland Park, Ill.*

# Audio-Visual AIDS

## Travelogs Encourage Legislature to Finance Film Exchange

**T**HIRTY years ago in the summer of 1915 I chanced to pick up an Urbana, Ohio, newspaper containing a notice that the equipment of a defunct motion picture theater in that city was being offered for sale. I wanted to buy the equipment for an educational experiment, provided I could persuade someone to back my note.

These events took place about the time the Germans torpedoed the *Lusitania* at the outset of World War I, many months before the U.S. entered that fray. I almost missed consummating my purpose when some well financed persons outbid me on the deal, but fortunately for me, the doctor who owned the building and the equipment preferred to take less money and give my experiment an opportunity.

### RETIRING THE DEBT

To retire the debt, I offered the public theatrical pictures. The first was a five-reel feature starring dainty Marguerite Clark in "Snow White." The picture cost \$5 and grossed \$7.50. But the project grew rapidly, and within a year I was netting as much as \$150 for one show. This served not only to retire the projector debt and to pay for the shows, but also to procure the meager trickle of educational films which I was able to pick up.

Incidentally, this income also bought the seats for the school auditorium; the stage curtain and scenery; 800 books for a school library, and equipped all the school laboratories and the playground. Moreover, it helped to finance the building of two church properties. Of course, this success attracted competition, and soon about ten neighboring schools were in the field. These formed an association which made money for its member schools by increasing their purchasing power, thus permitting them to rent more costly pictures

### B. A. AUGHINBAUGH

Director, Ohio Slide and Film Exchange, State Department of Education, Columbus, Ohio

which they "circuited," that is, sent them from school to school.

It wasn't all work, for the project provided a most welcome relief from humdrum school duties, and sometimes there were real adventures. One night the feature picture was entitled "The Fall of a Nation." Almost everyone has heard of the "Birth of a Nation" but this "Fall of a Nation" was something different, though quite as thrilling. It was the first picture to portray the bombing of a city. In the days of silent pictures the action was pointed up by music and sound effects. The "Fall of a Nation" queue sheet called for "heavy battle music" and "battle sound effects." The Storm Music from William Tell was used for the "battle music," and for the "battle sound effects" my associates and I really extended ourselves.

To effect the rattle of musketry we had a number of boys, stationed in the stage wings, place yardsticks under their feet and by bending these up and then releasing them a series of sharp raps on the stage floor was produced. We also placed barrels in the wings into each of which four boys (two to a barrel) discharged four 35-caliber revolvers loaded with blanks.

When the picture showed the bomb hitting the earth the accompanying "sound effect" seemed to lift the roof, and things began to happen fast, so fast in fact that I only managed to catch up with the lady pianist two blocks away from the school building. She was still running rapidly from the "bombing" when I overtook her. On returning to the schoolhouse I found the spectators all outside and reluctant to return indoors.

We had not counted on the smoke! But it was a great show and so memorable that some weeks later when we employed sound effects for the storm scene in "Shore Acres" some patrons who rushed outside to put side curtains on their open cars were surprised to find it was a moonlight night! I relate these incidents to show that pioneering has its exciting compensations.

These activities, plus the educational use of motion pictures, attracted the attention of the state department of education. One of the early examples of the motion picture's power to convey knowledge rapidly was exhibited by the instruction of a class of twenty students in physical geography. The life history and work of rivers was taught in forty-five minutes, whereas by the teacher-book type of presentation this work required five days.

### WHAT TEST SHOWED

The test given the picture taught group was the same as previously given the teacher-book taught groups after five days' study. Other tests showed that the motion picture led 100 to 1 over words in conveying description; that its ratio to words was 50-50 in conveying narrative; that the motion picture was 37 per cent better for conveying exposition and was 100 per cent superior for conveying argumentation. The retention of the picture trained group was overwhelmingly superior to that of the word trained group.

With this background, the department of education of Ohio established an educational Slide and Film Exchange to lend educational slides and films free to Ohio schools. To pay the bill the state's film censor fee was increased from \$1 to \$3 for each thousand feet of film exhibited in the state, and from this income the exchange was given half the surplus existing after the operation costs of the censor board were deducted.

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dollar collection of slides and films, and it ships approximately 800 pictures daily to Ohio schools which pay nothing but transportation costs for the service. This collection of educational films is said to be the world's largest, employing thirty-five people, and Ohio schools probably lead the world in the use of educational slides and films.

The inside story of how the law was enacted is interesting. Having seen much of the world in my travels abroad, I decided to see Ohio during my summer vacations, partly because

I hadn't seen Ohio but chiefly because such travel was within my financial means.

My wife and I visited all the points of historic and scenic interest in Ohio and took numerous photographs. Later this material was put together in lecture form and was presented approximately 3000 times to schools, clubs and other groups. When the bill creating the state exchange came before the senate finance committee of the state legislature for a hearing, instead of talking about the exchange I elected

to stress the Ohio publicity part of the measure and gave the committee my well known lecture.

The lecture sold the committee so completely that I was asked to repeat it before a joint session of the house and senate in a special night session. This is the only time on record where anyone except the governor of Ohio ever addressed a special night, joint session of the Ohio legislature. The legislators were so sold on Ohio that they unanimously approved the proposed measure.

The exchange arrived with the "tide," and it has proved a decided benefit to Ohio schools. The Ohio promotion part of the program later took the form of twenty-four Ohio Travelogs produced by the exchange. These Ohio Travelogs are now on deposit in most states and some foreign lands and are used daily not only in Ohio but all over the world. It is well to use double-barreled guns!

### All-City Radio Workshop

New York's All-City Radio Workshop gives selected public high school students actual experience at the board of education's radio station, WNYE, located at Brooklyn Technical High School.

Four afternoon study periods each week are spent by forty-six selected students at the workshop. Chosen in stiff competition from twenty-one high schools, students are divided into three groups: production, script writing, and engineering.

Candidates for the production group are chosen at auditions held in January and June of each year. The script group is selected at the same time on the basis of interview and submission of samples. Engineer candidates are chosen from those taking the electrical engineering course at Brooklyn Technical High School.

"Assignment to UN," inaugurated last October, has become one of the most important youth programs in the country, it is said. It consists of on-the-spot interviews with prominent officials of United Nations and is handled entirely by the group, which prepares the script and conducts interviews each Wednesday at Lake Success, N.Y. A recut record of the assembled interviews is broadcast over WNYE, an FM station.

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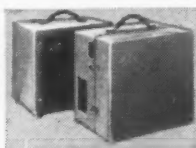
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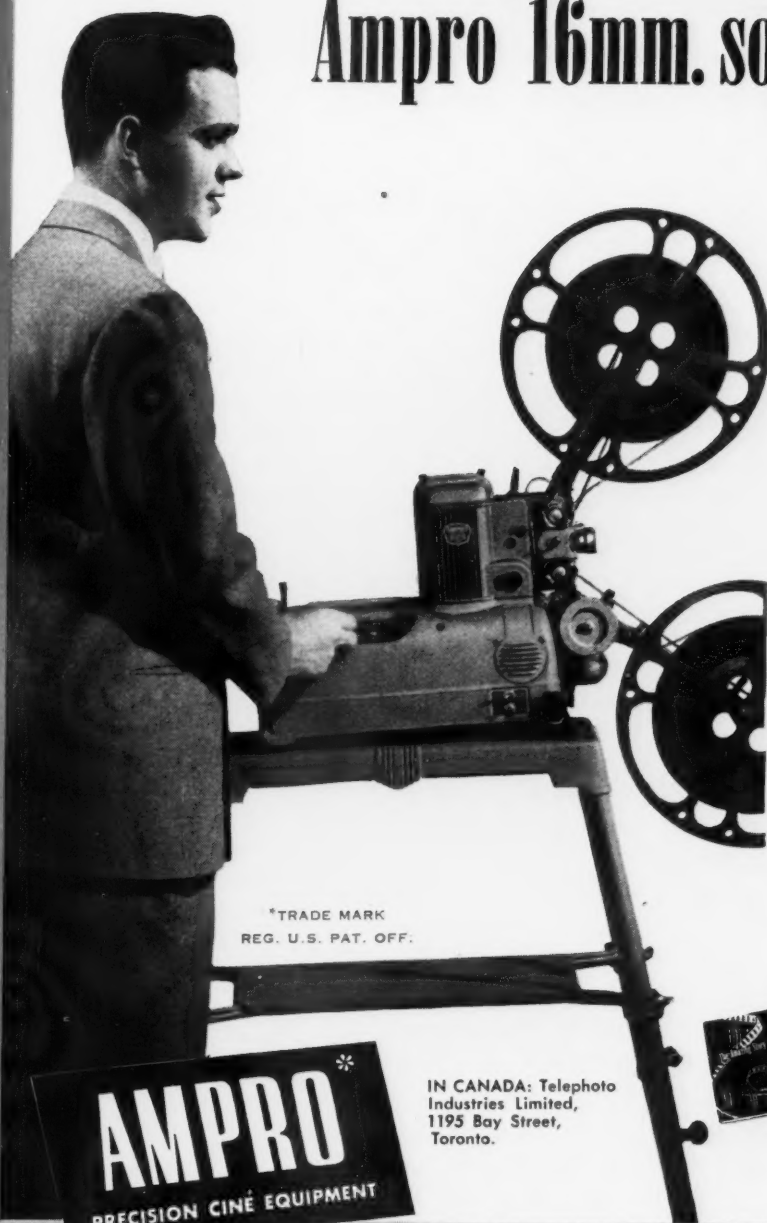
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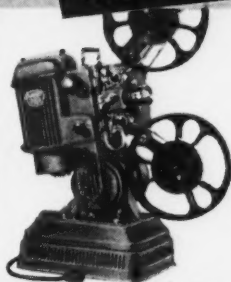
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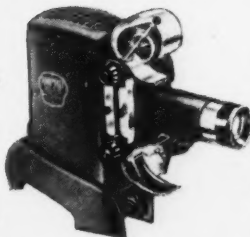
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# Operation & Maintenance

## PREPARING FOR THE SUMMER LAY-UP

**H**HEATING systems deteriorate considerably during the period when they are not in use unless they are carefully "laid up." The boiler operator, as he looks forward to the summer "lay-up," needs to plan along three lines.

He should have a list of what he is going to do, he should plan the order in which he is to do the work, and he should list the supplies he knows he will need. As the work progresses, need for other parts which he did not anticipate will become apparent. Some replacements may be suggested by the boiler inspector, too. All this work can be done in advance.

### Estimating Time Needs

The condition of the boiler to be laid up will depend upon the feed water used as well as the type of fuel burned. Some rough idea of what cleaning problems may be involved when the boiler is opened can be gained by drawing a sample of boiler water in a glass bottle which can be tightly capped and placing in this water a new nail. In some cases, after three weeks' immersion, the nail will appear as clean and the water as clear as the day the nail was inserted. Less hours need be allotted to cleaning the boiler when this type of reaction occurs than will be required when the water becomes filled with rust colored particles from the nail.

Sometimes the condition of the gauge glass gives a clue as to the amount of time which may be needed for cleaning a boiler. Operators who allow the gauge glass to become so discolored that water levels cannot be read are likely to have boilers needing lots of work at lay-up time.

The regularity and carefulness with which flues have been punched during the heating season are another factor governing the time that will be required for boiler cleaning.

### JULIUS BARBOUR

Consultant in Building Maintenance  
Michigan State College  
East Lansing, Mich.

The report sheet on the condition of the boiler the previous year after a similar time in service is usually the best guide to use in forecasting time needs on boiler lay-up, particularly if the operator and the fuel have been the same during the present heating season.

Except in unusual circumstances the person planning a time schedule for laying up boilers should be able to estimate fairly accurately how long each will take by observing the foregoing facts.

There is little excuse for a man or a crew having to kill time while a search is made for gaskets, more graphite, flue cutters or stay bolts. The materials and tools for the job should be assembled on the spot before the first work on the boiler is done. Most inexcusable of all mistakes in work planning is commencing the job without having at hand an operator's guide for the particular boiler to be cleaned. The guide or specification sheet of materials used in the boiler also should be at hand in winter when supplies for lay-up are ordered. Every boiler operator should have printed information in the boiler room concerning the boiler he fires.

### Boiler Opening

Before allowing the boiler to cool off prior to opening, men and supplies should be ready to work. The date of lay-up should be sent to the boiler inspector as it will help him arrange his schedule of visits for greatest efficiency. After allowing the boiler to cool gradually so as to disintegrate the scale, it needs to be washed out thoroughly.

When the manhole plate has been removed, one should be careful not

to light a match immediately as any kerosene or oil in the boiler may have left fumes which may ignite. Sufficient time should be allowed for any fumes to escape before the boiler is entered. Similarly, it is dangerous to enter a boiler when one is alone in a boiler room.

If a hose is used to wash the boiler, a proper nozzle should be attached for spraying as the use of thumb or finger may cause trouble. Likewise, a carelessly directed stream of water may force scale particles into the eyes of a fellow worker. Care should be taken to make sure that any extension cord is properly insulated and that there is a guard on the bulb. Water should not be sprayed directly at the light. Mechanical tube cleaners should be kept on the move and not be left running at one place in the tube.

### Steps in Cleaning

1. Clean the breeching, sweeping toward the stack and leaving the draft damper open. In the case of small boilers, store the pipe in a dry place.

2. Wet down all soot in the combustion chamber and stack pit to facilitate handling so that you can shovel it out without dust.

3. Clean the sides of the boiler, scraping the heads and belly and all metal parts that can be reached. Clean the flues with a scraper and oil them lightly.

4. Coat all machined surfaces with oil or grease and give all heating surfaces of steel boilers a coating of lubricating oil on the fire side.

5. Remove all ashes and clinkers from the firebox, grates and ash pit. A light beneath will help in making sure that the grates are closed.

6. Remove and clean the steam gauge.

7. Remove and clean the water glass. This may be done by filling the removed glass half full of vinegar,

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**OFFER EXPIRES MAY 31, 1948**

placing a finger over each end and shaking it.

8. Remove rust or deposit from exposed surface by scraping with a wire brush or sandpaper. Apply preservative paint to all external parts normally painted.

9. Remove and clean the water column clean-out plug.

10. Open the blow-off connection, taking the bonnet off the blow-off valve; clean and replace it.

11. Oil all door hinges, damper bearings and regulator parts.

12. If possible cover all motors, fans, pumps and so on with canvas after cleaning and oiling them.

13. Leave the boiler room clean, free from paper, boxes, oil cans or refuse which might be a fire hazard.

14. Give the floors and walls their usual cleaning and/or painting.

### Inspection

The boiler inspector is the operator's best friend. His advice is valuable. Cooperation with him in asking and answering questions indicates the

willingness of an operator to leave the boiler room at the end of his shift through the door instead of leaving unexpectedly in the middle of his shift through a suddenly created opening.

### Dry and Wet Lay-Up

The dry method of laying up a boiler means letting it stand idle, treating the gaskets with a graphite preparation and sealing the hand holes. Shallow pans as large as will go through the manhole are placed on the tops of the tubes and are two-thirds filled with quicklime. This lime absorbs dampness in the boiler, once the manhole plate is sealed.

These pans *must* be removed before filling the boiler for the heating season. It is well to attach a note to the boiler calling attention to the lime and calling for its removal before putting the boiler in operation.

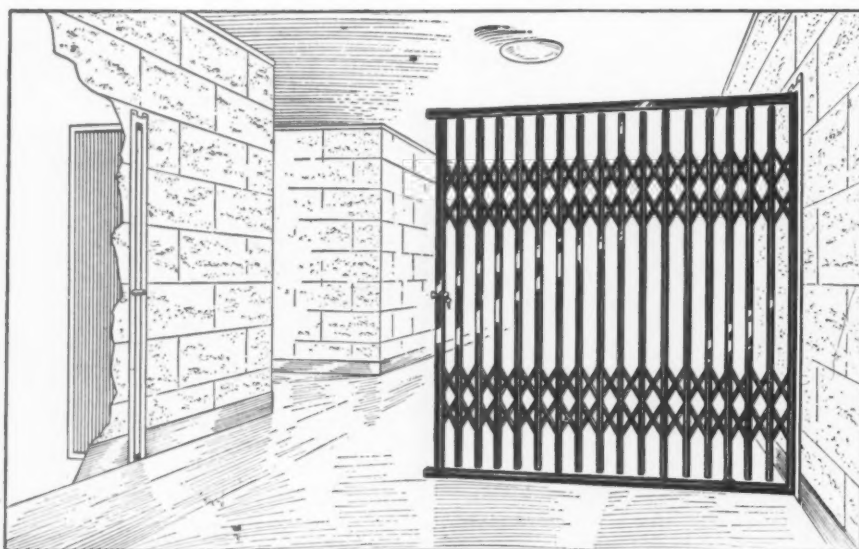
In laying up boilers by the wet method, it is important to apply a good coat of oil to the fire side of the boiler. Unfired boilers have a tendency to sweat on the fire side of the metal when filled with water for the summer. The gaskets and manhole covers are then replaced and the boiler is filled with water up into the opening of the steam outlet line. If it is only partially filled, deterioration takes place at the water line.

### Compare Heating Systems

A comparative study of radiant and convector heating systems will take place in a student apartment building now being erected at the Georgia School of Technology. This study will be watched with interest by heating engineers in the school field, particularly in relation to multi-story buildings, as the Georgia Tech building is eight stories high.

The structure is in the form of the letter "H." One wing will be heated by means of wrought iron pipe coils concealed in the concrete floor slabs and the other wing by the conventional type of convectors.

The architects and engineering department at Georgia Tech plan to record operation costs as well as performance data. While there are some multi-story buildings now using radiant heating systems in this country, this is reported to be the first to incorporate both radiant and convector types.



## for indoor Traffic Control

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#### Memo to School Architects

Architects are invited to send for special blue-prints or other detailed information regarding folding gate problems. State conditions as fully as possible so that the most practical assistance may be rendered.

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# THE SCHOOL CAFETERIA

CONDUCTED BY MARY DeGARMO BRYAN

## FROM CAFETERIA TO LUNCHROOM

MISS FAWCETT, could you make a combination plate with a balanced meal and sell it for 35 cents?" "You can do anything with food, Mr. Lewis."

This conversation or a similar one repeated several times marked steps by which the P. K. Yonge Laboratory School changed its cafeteria into a school lunchroom, serving a plate lunch to approximately 85 per cent of the pupils.

This is the campus school operated by the College of Education of the University of Florida. There are about 500 pupils, from kindergarten through grade twelve. The school building was begun in 1933, and the school opened in 1934. Because of restricted funds, the cafeteria space was limited, and the physical facilities and arrangements leave much to be desired. From the beginning, however, only nutritious and desirable food has been served. There has been no soda pop, no candy, or nonnutritious appetite satisfiers.

### DIFFERENT PLANS TRIED

During the history of the school several plans for serving the noonday meal have been tried, including a concession, a long noon period to allow pupils to go home, and a school operated food service on a self supporting basis. By 1945 a well established plan had been evolved.

Food was served cafeteria style with the pupil being allowed a choice of several meats, eight or ten vegetables, several salads and desserts, sandwiches and milk. The cafeteria was self supporting except for the manager's salary which was paid like those of other staff members. The manager was regarded as a staff member and was invited to all staff meetings.

Costs ran as follows: meat, 12 cents; vegetables, 7 cents; butter, 2 cents; bread, 2 cents; milk, 7 cents; salad, 7 cents; dessert, 7 cents; sand-

### HAL G. LEWIS

Principal

P. K. Yonge Laboratory School  
University of Florida

wiches, 15 cents. A full meal of meat, two vegetables, salad, milk, bread, butter and dessert cost 51 cents. The portions of meat were necessarily small. Only thirty minutes' lunchtime was given each group. Elementary teachers went to the cafeteria with their children and ate with them. The food was good; pupils enjoyed it; everybody seemed happy.

Nevertheless, the principal and some of the teachers, who had children in school, were not satisfied because of the cost of a full meal to the children. While the younger pupils selected their food under the guidance of the teachers, supervision was difficult for the older ones. With this in mind a quiet check of trays was made as pupils came down the line. This revealed three definite facts. (1) Some pupils were "cutting corners" to save money. A vegetable was left off, no meat today, no milk tomorrow, and similar variations. (2) Other pupils were loading up heavily on salads, desserts and chocolate milk. (3) A large number were bringing lunches from home.

### STAFF SEES NEED OF CHANGE

These facts were presented in a staff meeting and, added to the experience of teachers in other situations, convinced the staff that changes were needed in the cafeteria. It was also recognized that there would have to be careful planning because of pupil liking for the plan then in operation.

The first step was to set up a plate lunch of meat, two vegetables, salad, milk, bread and dessert for 30 cents for younger children and 35 cents for older pupils. This reduction of price for taking the plate lunch was called to the attention of the parents by letter and attracted about 25 per cent

of the pupils. No adequate cost accounting figures are available, but money was probably lost on each such meal.

This arrangement went on for six months. At the end of this period the faculty decided the time had come to study further the possibilities of a change to a plate lunch plan entirely. It was decided to investigate the possibility of obtaining the federal subsidy, which would necessitate serving a standard lunch of meat, vegetables, milk, bread and butter. The principal was charged with getting data necessary to the decision about the change, and he made application to the state school lunch supervisor for the federal subsidy toward food costs. However, all funds had been encumbered.

### MEAL DECIDED UPON

Costs were discussed and analyzed by the principal and the cafeteria manager. It was decided that we could probably operate and sell a meal of meat, two vegetables, salad, milk, bread and butter, and dessert for 30 cents for older pupils and 25 cents for young ones, if extras and choices were eliminated. No other alternatives were discovered except the plan then under operation.

One principle was established firmly at this point, namely, that there would be no lowering of the quality of the food or the standards of preparation and serving. We believed that many school lunchrooms failed in their appeal to pupils because they underemphasized the attractiveness and esthetic quality of food in preparation and serving. School lunch people could and probably should profit from a study of and experience in commercial food establishments on this point.

The proposed plan for change was presented to the student council of the school, and the reasons for and against the change were presented.



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**Sexton**  
*Quality Foods*





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You can—you've *still* got an out. Hobart food preparing machines cut operating costs while developing food quality and enhancing flavor and appearance. They cut waste, deliver more servings with lower preparation costs—

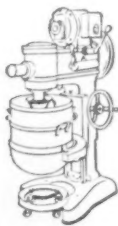
make meats, flour, fruits, vegetables and coffee go further. At the same time, Hobart dishwashing and glasswashing machines develop highest possible standards at reasonable cost.

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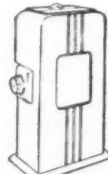
PEELERS



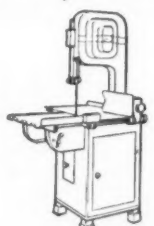
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# Hobart Food Machines

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The council represented only the high school boys and girls, and the elementary teachers discussed the question with their groups. The student council members saw and understood the advantages but preferred the plan then in operation because of the choice involved in selection of food. No formal vote was taken on whether or not to make a change, but members were asked to discuss it in their homerooms and explain carefully the proposed change and why it was being contemplated. Council members reported back the reaction of pupils, who were generally opposed to the change.

It would be of value for someone to try to discover whether young people in this and similar cases vote according to their convictions and interests or whether they express sentiments that enable them to maintain "face." Specifically, did pupils who were feeling the pinch of high priced lunches vote for lower prices, or did they seek to maintain "face" by voting for the higher priced plan? Is this an opportunity for citizenship teaching and for an attack on the practice of "keeping up with the Jones's"?

#### **PARENTS GIVE APPROVAL**

While this was going on among the pupils, a letter explaining the proposed plan was mimeographed and sent to parents. Accompanying it was a simple questionnaire asking if they would approve the change proposed. It was suggested that parents talk it over with their children before replying. The approval of parents was overwhelming. Approximately 85 per cent favored the change. After all these facts were presented to the faculty, it was decided to adopt the new plan.

Homeroom teachers were asked to explain to their groups that the change was being made and why. They were to announce that after a trial period pupils would be given a formal opportunity to express their opinions and make suggestions. The die was cast and, after seven and a half months of preparation, the plate lunch plan was started. The only variation allowed was the purchase of extra meat, vegetables and milk.

After a preliminary period in which several groups brought lunches from home for two or three days, things

quieted down, and receipts began to pick up in the lunchroom. Packed lunches began to disappear. After two weeks the state supervisor wired that some money had been released for food subsidy, and that our application had been approved. The price of lunch was immediately cut to 20 cents for all school pupils.

Again parents were notified. Their response was almost 100 per cent favorable.

#### **APPROVED BY PARENTS**

Another questionnaire was sent to parents and given to pupils. This asked definite questions about the quality and quantity of food, and the amount of money spent formerly and now. It also asked for suggestions. Pupil opinion still favored the old plan, but only by a small majority and that in the face of admission by dissenters that one got more food of the same quality for less money. Parents approved almost unanimously. One pupil expressed it, "They went over our heads to our parents."

For the entire next school year 1946-47 the lunchroom plan continued with about 90 per cent participation, and in the face of rising costs, lunches were held to the same quality and price. Parents on numerous occasions bore witness to the fact that their children were learning to eat new and better foods. Increased volume, less labor needed per lunch served, less waste food, and buying of seasonal foods in more exact quantities made it possible to keep quality up and price down.

When some student complains that he can't stand any more chile con carne and asks why the school serves it, Catherine Vial, in charge of food service at Beloit College, Beloit, Wis., watches every tray that is returned the next time chile con carne is on the menu to see if other students share his prejudice. If it has not been widely eaten, off the menu it goes without further delay.

Often this food manager gives to picked students a blank menu form and asks them to fill it out with dishes they would like served. Considering these student planned meals, her budg-

Some time has passed and it is now possible to look back and say why we believe the experiment has been successful. There were at least four factors that contributed to its success. First was a manager who knows food and how to prepare it and serve it so that people like to eat it. Too many school lunch managers think that if the calories and vitamins and such are there, that is enough. But they are only a part of the requirement. Our experience has shown that nutritional deficiency in children is caused by poor dietary habits as well as by poverty. One step in correcting this condition is to have good food, attractively prepared, and served in pleasant surroundings.

#### **EXPLAINED BY FACULTY**

The second factor making the change successful was that the decision was made by the faculty as a group. Each staff member worked to make it succeed and took the time and trouble to explain again and again to the pupils the reasons for the change.

The procedure of asking for pupil and parent opinion was the third factor in success. While pupil opinion was not followed, the resentment caused was less than it would have been if the pupils had been ignored.

Fourth was our good fortune in getting federal funds as subsidy. This enabled us to furnish free lunches to all who were unable to buy and ensured the success of an adequate meal for all by allowing us to cut the price so that all pupils in the school could afford a full meal.

## **Some Hints for Menu Planning**

et, and the kitchen facilities, she then rejuvenates her menus. She also slips blank menus to faculty members on occasion.

Miss Vial does not prepare menus more than a week in advance; this keeps the season's menus varied and elastic and open for any legitimate suggestions. By not having a long term plan, she can easily eliminate any special dish that is not being accepted and also is able to take an advantage of in-season commodities.

By keeping menus secret, the element of surprise operates to the advantage of student appetites.

# NEWS

## *Church and State Issue Hot . . . Local Reactions to Supreme Court Decision . . . Petition to Bar Nuns From Public Schools . . . Large Elementary Buildings Denounced . . . Building Total Shoots Up*

Washington Correspondent: HELEN C. BROWN

### **Church and State Issue Brings Countercharges**

WASHINGTON, D.C.—The organization known as Protestants and Other Americans United for Separation of Church and State has replied to the pronouncement of the Most Rev. John T. McNicholas of Cincinnati, speaking for the National Catholic Welfare Conference. Archbishop McNicholas had denied an earlier P.O.A.U. statement that the Roman Catholic Church was encroaching on this country's traditional separation of church and state, with specific reference to public schools.

The Protestant group stated that Archbishop McNicholas heads an archdiocese which presents a clear and notorious instance of gross violation of this fundamental American principle, namely, North College Hill, Ohio, where nuns teaching in the public school system were placed on the public pay roll, continued to teach Roman Catholic doctrine and used the school for bingo games and other parish activities.

It pointed out further that in New Mexico, schools in more than twenty districts, listed in official records of the Catholic Church as parochial schools, are entirely supported by public taxation. And in North Dakota, seventy-four nuns wearing their distinctive garb are employed as teachers in public schools.

To these charges, Msgr. Frederick G. Hochwalt, director of the department of education of the National Catholic Welfare Conference, replied that employment of Catholic nuns as teachers in a public school does not make the school Catholic either in law or in fact. With regard to the North College Hill situation, he stated that nuns have been in and out of the school system as com-

munity sentiment varies from year to year, and that church authorities have "merely tolerated" the arrangement.

With regard to the New Mexico schools, Msgr. Hochwalt referred to testimony before a House subcommittee on education by Rep. Georgia Lusk, a former New Mexico superintendent of public instruction, in which she stated that it is hard to get competent lay teachers in sparsely settled areas, "so we have to employ the Sisters."

### **Reactions to Supreme Court Ruling on Religious Issue**

CHICAGO.—Pupils receiving religious instruction on released time are remaining in their classes until an opinion on the decision has been expressed by the legal department of the board of education. The chancery office of the Roman Catholic Church announced that Cardinal Stritch would have no comment until the decision had been studied. Dr. Paul C. Allen, superintendent of the Chicago Baptist Association, said his church embraces both poles of feeling about the decision. Dr. Roy G. Ross, general secretary of the International Council of Religious Education, said that the official policy of the council with respect to the released time principle as practiced in Chicago remains undetermined, other than full compliance with the law as it is to be interpreted.

NEW YORK.—The law committee of the board of education stated that this city's program for religious instruction outside of school buildings is not affected by the Supreme Court decision. The Freethinkers of America, of which the father of Mrs. Vashti McCollum of Champaign, Ill., is an officer, has informed the New York

City board of education that unless the practice of teaching religion is abandoned, legal action will be taken against the board in order to uphold the provisions of the United States Constitution as it applies to the public schools of New York.

ALBANY, N.Y.—Charles A. Brind, counsel for the New York State Education Department, announced that the current practice of allowing children to receive religious instruction outside regular school classes will be continued unless the law permitting it is held unconstitutional.

URBANA, ILL.—T. H. Cobb, superintendent of schools, said that religious education classes are being ended. At Champaign, Ill., home of Mrs. McCollum, it was said that public school religious education classes probably will be continued until an official order is received ordering them stopped.

### **Nation Needs More, but Smaller Schools**

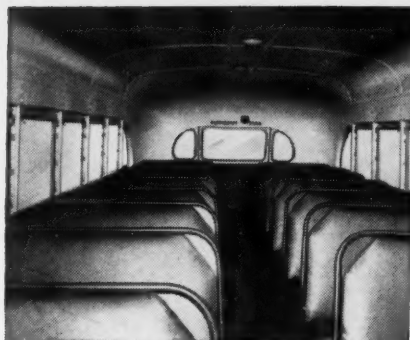
WASHINGTON, D.C.—The National Conference on Social Welfare Needs urges the expansion of public education from kindergarten through the first two years of college and also adult education. If this expansion is to take place, the commission stated, the nation will have to spend more money for its schools.

Services of the counselor, nurse, physician, psychologist and psychiatrist should be expanded. New buildings and facilities are needed to replace obsolete plants and equipment and to accommodate increasing enrollments. The commission warned against the construction of large buildings. It recommended that elementary schools should be constructed to serve from 100 to 400 pupils, and high schools to serve not more than 1200 to 1500 students.

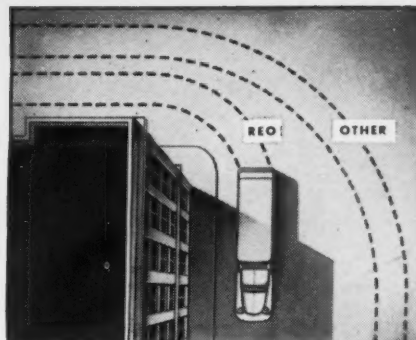




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**2.** The schoolboard found room for three children in each 39-inch, well-spaced seat. Other safety features: rows of seats staggered for easier access; easy-to-grip handholds, with built-in shields, prevent accidental wrist injuries.



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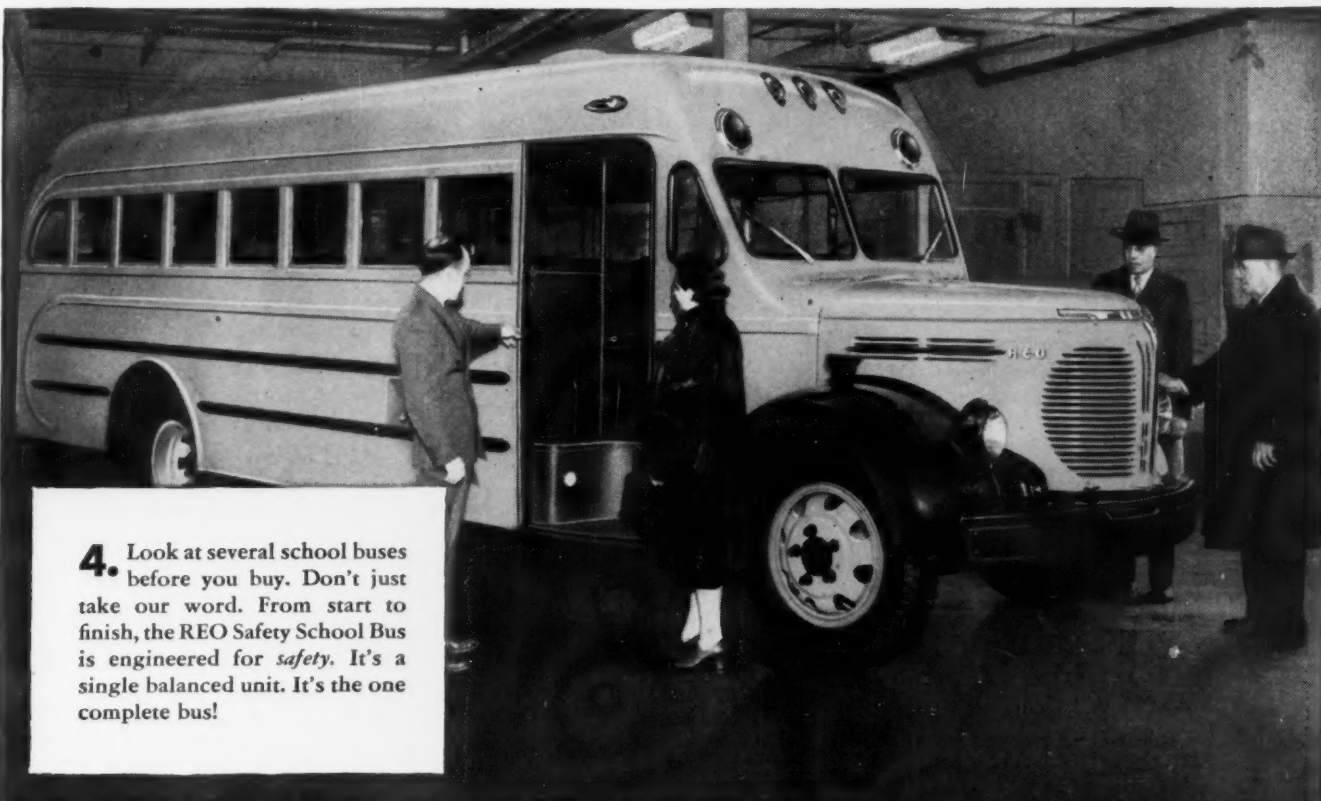
## Board the bus the schoolboard bought—REO!

Recently a Michigan schoolboard carefully checked several makes of school buses. Without reservation they decided on a REO Safety School Bus—the only school bus made that conforms to *all*, yes *all*, the National Education Association's requirements.

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Read why the REO Safety School Bus is the *only* school bus to win the *Safety Engineering Magazine* award for safety in motor-vehicle design. Frankly, you can't afford to buy any bus until you check the REO Safety-School Bus, the bus that puts safety first, last and always.



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stop. Turn on the lights, the windshield wipers, test the safety signal. You'll be convinced that you owe it to your children to get all the facts on REO. For further details, or to arrange a demonstration, write School Bus Division, Reo Motors, Inc., Lansing 20, Michigan.

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## NEWS . . .

### Would Bar Nuns From Teaching in N.M. Public Schools

SANTA FE, N.M.—A lawsuit to test the constitutionality of the employment of members of Roman Catholic religious orders in public schools was recently filed in the state district court. Atty. Harry L. Bigbee, former district court judge, filed the action, representing twenty-eight taxpayers and a state council of Protestant ministers.

The suit named 235 defendants, including Gov. Mabry, State School Supt. Charles L. Rose, school trustees of sixteen counties and communities, and the Rev. William T. Bradley, archdiocesan director of education. Other defendants are 145 members of Catholic orders employed in public schools and members of school boards giving them employment.

Specifically the suit asks (1) an injunction barring school boards from hiring a member of a Catholic religious order as a public school teacher, (2) an injunction preventing the state school budget director from making or approving a budget paying school funds to such personnel, (3) that twenty-nine schools now operated as public schools be declared parochial schools and ineligible to receive public funds, (4) that all members of Catholic religious orders be declared ineligible and barred from teaching in public schools, and that they be dismissed, (5) that payment of teachers' salaries to religious orders be declared an illegal expenditure of public funds.

A joint statement of Catholic bishops made shortly after the filing of the suit asserted that Catholic Brothers and Sisters for more than fifty years have fulfilled the educational needs of certain communities as public school teachers and added that the church would "readily accept and conform" with a final court decision in the matter.

### Petition for Non-Clerical Teachers in North Dakota

BISMARCK, N.D.—Petitions have been circulated throughout the state seeking a referendum vote in June on a proposed law barring the wearing of clerical garb by any person teaching in a public school. According to the Catholic bishop of Bismarck, seventy-six nuns have been teaching in public schools in nineteen communities for an

average of 16.2 years. In nine of these communities, the school buildings are owned by Catholic parishes to which the nuns are attached. In some of the districts there has never been a publicly owned school, it is said. Parochial schools were first set up and, when public school districts were formed, the Catholic parishes turned over their buildings to the district, and the nuns continued as teachers.

### Veterans' Subsistence and Ceiling Income Increased

WASHINGTON, D.C.—Beginning April 1, veteran students taking "full-time" education in schools, colleges and universities will receive increased subsistence payments under Public Law 411. Veterans with no dependents will receive \$75 monthly instead of \$65; those with one dependent will be paid \$105 monthly, instead of \$90, and those with two or more dependents will receive a total of \$120 per month.

### School Building Total Rises in 1947

WASHINGTON, D.C.—The sum of \$319,000,000 for school building construction in 1947 was the highest total within the last seven years, the Federal Works Agency disclosed recently. The agency has advanced more than \$23,000,000 to 2153 school districts to plan construction projects totaling \$539,000,000. According to George H. Field, commissioner of the bureau of community facilities of the agency, a recent estimate of \$11,000,000,000 as needed for new schools might be somewhat on the conservative side.

### Periodicals and Books Requested for Overseas

WASHINGTON, D.C.—Books on education published within the last ten years and periodicals in the professional educational fields are requested by the N.E.A. for shipping to war devastated countries. Donors are asked to pack the items in cardboard boxes, tie them, put a return address and the letters "NEA" on each package, and address them to the American Book Center, care of the Library of Congress, Washington 25, D.C. Send them by prepaid freight or book post, or write to the center for reimbursement if unable to afford the shipping cost.

One -



Two -



Three - Out!



There's no fire here, no panic, no rush or hurry. But . . . if there HAD been a fire or a panic, the exit doors would have operated just as surely as they did in this fire drill . . . for these doors have been equipped with genuine drop-forged Von Duprin Self-Releasing Fire and Panic Exit Devices.

These sturdy, precision built devices provide the safest, fastest, surest means of exit known . . . and, because of their long, trouble-free life, their cost per year is astonishingly low.

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enclosed in channel. Patents pending.

Brightness contrast has always been an objectionable feature of even the finest fluorescent fixtures. What is *brightness contrast*?

It is the eye-tiring variation in light intensity along the surfaces of fluorescent fixtures. It is caused by the use of dissimilar materials in the louver such as metal and glass . . . or metal and plastic. Today, however, objectionable brightness contrast has at last been eliminated within the fixture.

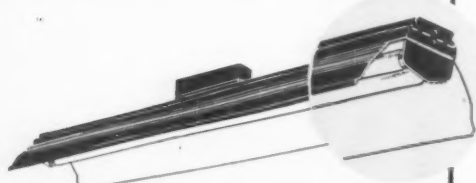
The Holdenline Arrowhead school louver is *all-plastic*, with no metal restraining parts. There's uniformly low brightness on all sides and sections. Without dark-to-light contrasts, this advanced fixture is equally attractive *whether operating or unlighted*.

Holdenline Arrowhead design also diffuses light evenly, softly.

Surface or pendant mounted, it reduces glare and prevents ugly bright spots on walls and ceiling.

Notice, too, how this new louver is shaped to prevent dirt accumulation. And for strength, self-locking plastic parts are all bonded into an integral unit that can't warp, sag, expand or discolor under any normal operating conditions. *This fixture is backed by the traditional Holdenline guarantee.*

Can you afford to install obsolete fixtures when there's a *new fluorescent standard*? Write to us today for complete information on the years-ahead Arrowhead fluorescent fixture. It features the only *all-plastic school louver with controlled brightness*.



For better workshop lighting, see Holdenline Industrial Chan'l-Run fixtures.

## HOLDENLINE CHAN'L-RUN BASIC UNIT SYSTEM FOR SCHOOLS

- Individual or continuous runs with standardized heavy-duty units.
- Sockets mounted on welded end plate for positive lamp spacing.
- End plate protects sockets during relamping.
- Louver snaps into place without screws for faster, easier maintenance.

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## NEWS . . .

### UNESCO Must Utilize Existing Organizations

WASHINGTON, D.C.—The United States National Commission for UNESCO held a two-day session in this city recently. The information committee urged that more emphasis be given to public relations in acquainting the public with UNESCO's activities. This is being done to a certain extent by "little UNESCO's" in more than a dozen states.

Some of the activities of these organizations include the enlisting of financial support for a children's camp in Europe; circulation of films, recordings, books and pamphlets on foreign affairs, United Nations, and life in other countries; providing speakers on world organization, and encouraging boards of education to provide funds for teachers' foreign travel.

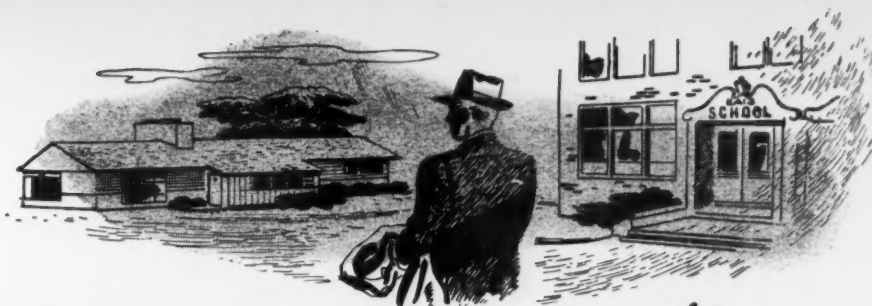
The commission during the present year will make an international study of social tensions in order to appraise the factors that breed conflict among individuals and nations. Albert Hadley Cantril, professor of social psychology at Princeton, will direct the project.

Two points emphasized throughout the meetings were that (1) UNESCO must utilize existing organizations and agencies—schools, colleges, libraries, women's clubs, farm groups, labor and management groups, and (2) UNESCO must demonstrate its value by many more specific accomplishments than it has done in the past. Immediate action was urged in carrying out concrete and tangible programs. The next meeting of the commission will be held in Boston in September.

### Overseas Teacher Relief

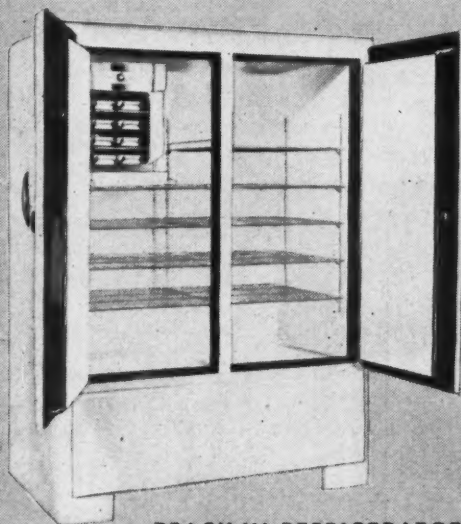
WASHINGTON, D.C.—Approximately \$206,000 for the Overseas Teacher Relief Fund had been raised by the teachers of America by February 4. The project is sponsored by the N.E.A.

Of this amount, \$85,000 has been used to provide packages of clothing and food; another large sum has been allocated for educational books for teacher organizations and teacher-education institutions. The sum of \$10,000 will be used to bring four teachers to the United States this spring who,



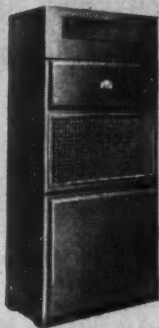
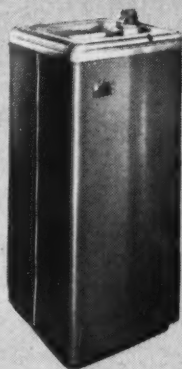
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**A NAME YOU CAN DEPEND ON**—More Frigidaires serve in more American homes than any other refrigerator. A quarter-century's experience . . . a tradition of truly great engineering achievements . . . have given Frigidaire commercial cold-making equipment, as well as home appliances, a world-wide reputation for dependable, reliable performance.

**A DEALER YOU CAN DEPEND ON**—Wherever you are, there's an experienced Frigidaire dealer to consult and co-operate with you. His advice, based upon specialized training and experience, may be the means of saving you many dollars and regrets in choosing your equipment.

**SEE YOUR FRIGIDAIRE DEALER**—find his name in Classified Phone Directory under "Refrigeration Equipment." Or write: Frigidaire, Dayton 1, Ohio. Leaside 12, Ontario.



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**GENERAL MOTORS**

Commercial Refrigeration and Air Conditioning  
Electrical Appliances for the Home

## NEWS . . .

together with two others to be financed by the N.E.A. Department of Classroom Teachers, will receive four months' in-service teacher education.

### V.A. Issues New Directory

WASHINGTON, D.C.—The Veterans Administration has released a new directory of the agencies designated by the states to approve educational institutions and on-the-job training under the G.I. bill.

### Labor Education Urged

WASHINGTON, D.C.—The Senate Committee on Labor and Public Welfare has held hearings on the "Labor Extension Act of 1947," introduced by Senators Thomas of Utah and Morse of Oregon. If enacted, the legislation would authorize the Department of Labor to set up an extension division similar to that now conducted in the Department of Agriculture. The extension division would

allocate funds on a grant-in-aid basis to state educational institutions for making available to workers information on collective bargaining, production, labor legislation, and good labor-management relations. It also would establish standards of instruction, but the responsibility for operation of the program would rest with the educational institution.

### Child Labor Laws Summarized

WASHINGTON, D.C.—The Bureau of Labor Standards of the U.S. Department of Labor has summarized proposed child labor and industrial relations legislation in the various states in its Legislative Report No. 2.

### New Arithmetic Study Guide

WASHINGTON, D.C.—A study guide, "Lessons in Arithmetic Through School Savings," has been issued by the Treasury Department. It suggests activities, problems and technics for use in elementary grades in teaching money management as a part of arithmetic. The pamphlet was prepared by Irene M. Reid of Minor Teachers College, a member of the School Savings Committee, National Council of Teachers of Mathematics. Copies can be obtained through the Education Section, U.S. Savings Bonds Division, Treasury Department, Washington 25, D.C.

### Surplus Property Available

WASHINGTON, D.C.—Approximately \$600,000,000 of surplus materials, other than real property, are still available through the War Assets Administration. In the procurement of such property, educational institutions have priority and are entitled to 95 per cent discount of fair value.

It is unlikely that Congress will extend W.A.A. which is due to expire June 30.

The uncertainties in the picture after that date make it important that schools and colleges seek immediately, through the channels already developed, to procure such surplus as they need.


### Building Program Approved

LA GRANGE, ILL.—By a majority vote of more than two-to-one, citizens approved bond issues here March 13 totaling \$970,000 for a school



Mosinee Roltowls, dispensed from the new Roltowl Cabinet, provide a towel service which is the answer to most every school washroom towel problem.

1. Roltowls are made from pure sulphate material having *fast absorbency* and *great strength*.
2. The Roltowl Cabinet has a feature known as a *Rocking Core* which prevents users from spinning the roll to take more towels than are needed.
3. The roll is covered by the cabinet hood, and the hood is provided with a lock and key.
4. The cabinet is simple to use — easy to load — and has no working parts which can become out of order.



Member of  
National School  
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For the name of the school supply distributor  
in your territory who can give additional in-  
formation on this new towel service, write to

**BAY WEST PAPER CO.**  
GREEN BAY, WISCONSIN  
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Sulphate Towels

PREP-TOWLS • ZIP-TOWLS • TRIM-TOWLS • TURN-TOWLS • ROLTOWLS



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- 50% MORE POWER!
- GREATER SPEED!
- MORE ALL-AROUND UTILITY!



ONLY  
**\$265**  
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The new Clarke P-17 Floor Maintenance Machine offers four revolutionary features . . . actually the only important improvements to be made in floor machines for 15 years. Here is speed, power and dependability at the lowest price on the market. With a  $\frac{3}{4}$  h.p. motor (instead of an ordinary  $\frac{1}{2}$  h.p.), and a full 17 inch diameter brush—it's your wise buy. Write—and complete information will be sent immediately.

- EASY MANEUVERABILITY IN "TIGHT QUARTERS"
- SMOOTH, NOISELESS PERFORMANCE

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Floor Maintenance Machines for More Than a Quarter of a Century.

# CUT YOUR ATHLETIC BALL BUDGET BY TWO-THIRDS

DO WHAT 100,000 U. S. SCHOOLS AND COLLEGES HAVE DONE FOR YEARS

## SPECIFY VOIT ATHLETIC BALLS



OUTWEARS 3-6 OLD TYPE BALLS on gym floor, concrete, asphalt or dirt.



ABSOLUTELY WATERPROOF... VOIT rubber-covered balls can be played on wet fields in mud or snow, or left under the sprinklers—or scrubbed with soap and water for sanitary purposes.



OFFICIAL STANDARDS... VOIT balls are completely official in every detail of weight, shape, size and performance.



HANDSOMELY DESIGNED—CUSTOM BUILT... VOIT equipment keeps that rich color and new appearance indefinitely.



VOIT BALLS FEEL RIGHT AND PLAY RIGHT without sacrificing in the slightest their other famed qualities.

MODEST COST... Not only is the initial price moderate—but the unusual durability and absence of upkeep makes a VOIT ball an investment, not a purchase.

# Voit

*America's Finest Athletic Equipment*

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Department ... W. J. Voit Rubber  
Corp., 1600 E. 25th St., Los Angeles 11.

## NEWS...

building program. They authorized the addition of fifteen classrooms and a small auditorium and library to the Congress Park School, the building of a neighborhood school for kindergarten and lower grades in the southwest part of the district, and the construction of a new building in the northeast section. A comprehensive survey and a program of informational service had informed the community of the need for more housing to relieve crowded conditions and to provide for anticipated large increases in enrollment. James E. Pease is superintendent.

### Fewer New Buildings

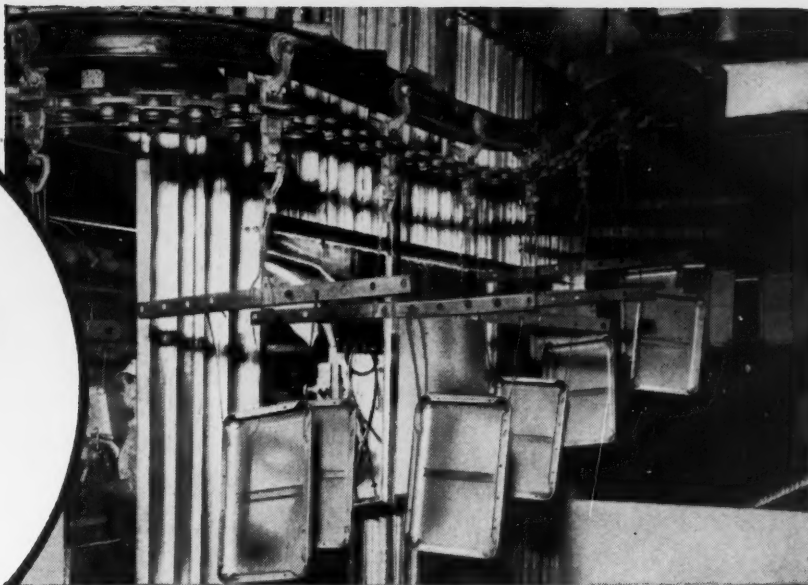
NEW YORK.—High costs of materials and construction have caused the board of education to retrench on its plans for eighteen new school buildings, previously scheduled to be started this year at an expenditure of more than \$28,000,000. Curtailments totaling more than \$5,000,000, have been proposed by the committee on buildings and sites. These will be effected chiefly by the simplification of designs and the substitution of cheaper materials, among them reinforced concrete in the place of structural steel. Probably no more than eleven new schools will be started this year.

### Warns of Teacher Shortage

WASHINGTON, D.C.—Within ten years the nation will face a shortage of 500,000 teachers, according to the National Education Association. Immediate steps must be taken to meet the crisis, the association warned. At present, 100,000 teachers are on emergency or substandard certificates. Despite the urgent need for additional teachers, however, public schools must guard against admitting incompetent persons into the profession. A program of teacher recruitment was urged to bring into the profession men and women of high scholastic standing and good personality traits.

### Predicts More Teachers Soon

KANSAS CITY, MO.—Dr. Eugene S. Farley, president of the American Association of Junior Colleges, recently predicted that the shortage of qualified teachers would disappear in less than ten years. Enrollments in teacher training courses in colleges, he said, have increased sharply. Dr. Farley, who is



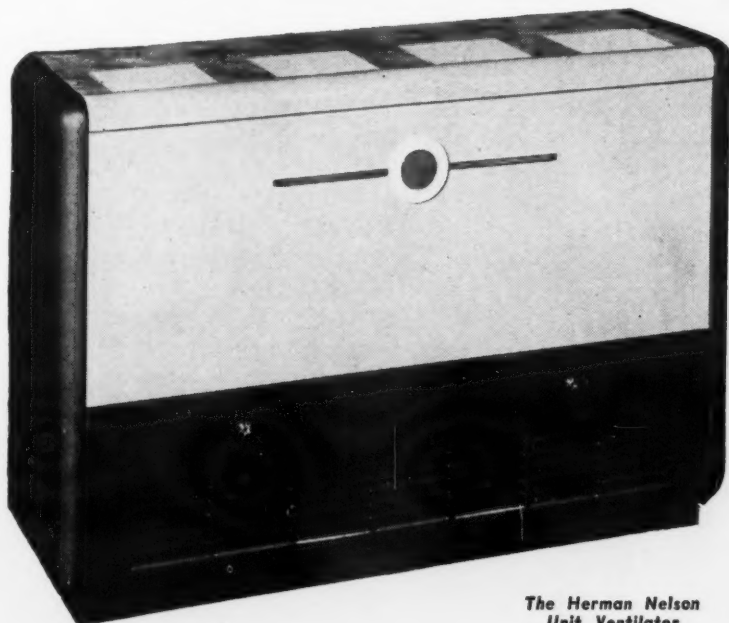
A small portion of the modern, \$40,000 baked enamel finishing system recently installed by Herman Nelson.

"19 MINUTES AT 275° F." is the secret behind the attractive, long-lasting, dust-resistant finish of the New Herman Nelson Unit Ventilator.

Under factory control, the finish is baked on to assure definite adhesion and a more permanent beauty. Finished in smooth, platinum-green enamel and harmonizing sahara-tan, the unit complements the decorative plan of almost any schoolroom.

There's another practical angle, too, about the finish of the Herman Nelson Unit Ventilator.

Applied at the factory with water-proof cement, the durable, linoleum top is easy to dust and wash. Should someone stand on a Herman Nelson Unit Ventilator to adjust blinds or wash windows, the finish will not be marred. This top also prevents watermarks and other blemishes caused by plants or similar objects often placed on units. These finishing specifications are typical of Herman Nelson's careful attention to minute details in the design and construction of a unit ventilator which provides better classroom air conditions.



The Herman Nelson Unit Ventilator

## 9 IMPORTANT POINTS OF SUPERIORITY OF THE NEW HERMAN NELSON UNIT VENTILATOR

- Floating Heating Element
- Pressure Equalizing Unit
- Condensate Cooling Surface
- Modular Fan Units
- Slow Speed, Direct Connected Motor
- Automatic Back Draft Damper
- Demountable Wall Intake
- Integral Design of Cabinet
- Welded Cabinet Construction



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Since 1906 Manufacturers of Quality Heating and Ventilating Equipment

**MOLINE, ILLINOIS**



## NEWS . . .

president of Wilkes College at Wilkes-Barre, Pa., said that in his state the teacher training enrollment had risen several hundred per cent.

### Economy Move Hits Teachers

BAYONNE, N.J.—Sixty-four substitute teachers have been dropped from the school system in an economy move, according to Dr. Howard Merity, superintendent. Absenteeism of regular teachers runs as high as fifty-four in one day, he states.

### Help for Teachers of German

EVANSTON, ILL.—Because of the shortage of college teachers of German at a time when enrollment in German classes is at its highest in decades, Northwestern University has expanded its curriculum to make it possible for more prospective teachers to qualify in the German language field.

C. R. Goedsche, chairman of the German department at Northwestern, pointed out that interest in all foreign

languages, particularly German, on the part of veterans has caused a widespread increase in language class enrollments in the last two years. Figures based on a study of 960 colleges show 108 per cent increase in enrollment in German classes in the fall of 1946, and 11 per cent more in 1947.

### Parents Approve Later Hours

CHAPPAQUA, N.Y.—Thirty parents of boys and girls in the senior class at Horace Greeley High School recently gave their approval to an all night student party following commencement exercises. For several years, according to Principal Douglas G. Grafflin, the idea of a post graduation party lasting until morning has been growing. When the present senior class made known its desire to go as a group from the graduation hall to dances in homes, to a country club for a swim, and then to some home for breakfast, the parents decided that approval of the idea was a proper expression of confidence in the graduates. They also recommended that formal dances during the school year end at 1:00 a.m. instead of midnight and basketball games not earlier than 11:30 p.m. Students would then have fewer opportunities to frequent taverns afterward, they believed.

### Mother Brings Charges

BARDSTOWN, KY.—A charge has been brought against school officials in Nelson County, Kentucky, by a mother, Mrs. G. W. Griffith, that her children, who attend a school in Marion County, have to attend a Catholic church or "stand out in the cold."

Hugh Spalding, Marion county superintendent, replied that the community where the four Griffith children attend school is Catholic, and that the entire teaching personnel is of that faith and wears the habits of the order. He denied that children are forced to go to the Catholic church and said that during the time the catechism is being taught and church services are being held, the eight Protestant pupils are permitted to read a book, if they wish.

### School for New Principals

CHICAGO.—A training school for new principals, the first of its kind in this city, will be held for the successful candidates in the examinations which have been conducted to set up an eligible list of principals. The school will be



## Looking for books that are "Boy-Proof"?

Even rough-and-ready boys would have a tough time marring bookbindings made of Du Pont PX Cloth or "Fabrikoid."

Both of these bookbinding materials are ideal for use on text books, library and reference books. They resist dirt, grease, and water. Can withstand hard knocks and rough usage. Are washable with soap and water. And the colors and texture effects are attractive.

Find out about these economical, durable bindings from your book supplier. E. I. du Pont de Nemours & Co.

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\*"Fabrikoid" is Du Pont's registered trade mark for its pyroxylin-coated and impregnated bookbinding material.

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BETTER THINGS FOR BETTER LIVING  
...THROUGH CHEMISTRY

Take a page from the book of experience

*For your School Buses!*

- 1 *Safety*
- 2 *Operating Economy*
- 3 *Vehicle Life*
- 4 *Minimum Service*
- 5 *Operating Ease...*

**the best brake  
is**

**AIR!**



School executives are not primarily in the transportation business—but, in equipping their school buses, they can benefit materially from the experience of men who are. Almost without exception, the bus lines of the nation rely on Air Brakes—Bendix-Westinghouse Air Brakes. This choice is, of course, primarily dictated by the extra margin of safety Air Brakes provide. They have proven to be the world's safest power-to-stop.

In addition, these economy-minded business men have found that the safest brakes actually cost less by the important savings they effect. Maintenance costs are cut to a minimum, vehicles are seldom off the road for service, and driver satisfaction is vastly improved. Take a tip from the men who *have* to know—contact your Bendix-Westinghouse Distributor. Old buses or new—your school buses need the safety of Air Brakes.

***Bendix-Westinghouse*** Automotive Air Brake Co.  
Elyria, Ohio

## NEWS . . .

conducted during the spring vacation. Its purpose is to familiarize new principals with administration and with the problems they will meet in the new jobs they will assume when schools reopen May 3.

Seventy-two vacancies, six of them in high schools, are to be filled from the list of successful candidates.

### Italy Joins UNESCO

PARIS.—Italy has joined UNESCO with the full status of a "member

state," thus bringing the number of voters to forty-one.

### Must Combat Race Prejudice

TALLAHASSEE, FLA.—Speaking before 3500 Southern educators, students and alumni attending the sixtieth anniversary celebration of Florida Agricultural and Mechanical College, one of the region's leading Negro schools, J. Curtis Dixon, president of the Southern Education Foundation, declared the "insularity of academic curriculums"

has been a principal factor in creating a strong feeling of nationalism and a pressing problem of race prejudice in this country.

"It is not easy to combat race prejudice," Mr. Dixon asserted. "We need some organization like the United Nations to study the whole field and see to what extent it involves insecure economic positions, social ostracism, and other elements. We need education to get us internationally minded in this country. Our academic problem is how to revise the study of history and the humanities to give us a basis of appreciation for other peoples."

### "Marshall Plan in Action"

NEW YORK.—Former battlefields and industrial areas are to be used as classrooms for 300 American students and teachers, half of them from New York City, who are going to Europe this summer for twelve weeks to study the proposed Marshall plan at first hand. The course, to be known as "the Marshall plan in action," will be conducted under the auspices of the local board of education and the University of Vermont. It will attempt to give teachers an opportunity to form on-the-spot opinions of the proposed reconstruction program.

### Hearings on National Defense

WASHINGTON, D.C.—Public hearings on measures designed to build up the nation's defense, including universal military training, were begun March 8 as ordered by the unanimous vote of the Senate Armed Services Committee. The decision to take the U.M.T. program into open hearings was made in face of the fact that a similar program has been bottled up in the House for eight months. A factor in the decision of the Senate committee to hold open hearings, it was said, was a situation wherein the whole Congress might be accused of dodging a controversial defense issue because a single committee (House Rules Committee) was blocking it.

### Czech Colleges Off G.I. List

WASHINGTON, D.C.—Universities in Czechoslovakia have been removed from the approved list for American war veterans who attend school with government aid. Between fifteen and twenty former servicemen are now attending Czech schools, most of them

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Seeking a positive "hit-and-kill" way of solving your insect problem? The new WEST VAPOMAT—filled just once with West Vaposector Fluid\* gives you "sure-fire" control of roaches and similar crawling insects within areas of 50,000 cu. feet. "Effective Kill" of flying insects in areas up to 100,000 cu. feet is also accomplished.

The West Vapomat actually penetrates the "Hidden Breeding Places" in your building—its tiniest cracks and crevices. Completely automatic, economical, light and easy to operate—merely set time clock and plug into AC or DC outlet, no manual attendance required.

*A prompt, dramatic demonstration by one of West's trained specialists will quickly convince you! MAKE US PROVE WHAT WE SAY! WRITE US ON YOUR BUSINESS LETTERHEAD NOW!*

\*West Vaposector Fluid is obtainable in non-inflammable, odorless and regular forms. Non-toxic as well as non-staining, West Vaposector Fluid is unsurpassed in insect killing efficiency and economy.

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**WEST** DISINFECTING  
*Company*

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## THE END OF A WALL PROBLEM

Until today this wall was a serious problem. Unsightly plaster cracks made it an eyesore. Repainting made only temporary improvement, and keeping it clean was nearly impossible. That situation is being changed now with this new wall of Armstrong's Veos Wall Tile. Its clear colors will never fade—its lustrous surface will require little care.

Armstrong's Veos Wall Tile is beautiful and durable. Its genuine porcelain finish is just like that of a fine sink or bathtub. And in Veos tile this porcelain is fused to a base of 20-gauge tempered steel. Since the porcelain and the steel expand and contract at the same rate, there are no strains to cause cracking or crazing. The porcelain also rust-proofs both sides and all edges of the steel.

Veos tile weighs less than one-third as much as ordinary tile. It is erected on a unique foundation

of insulating fiberboard, grooved so that the tiles fit snugly in place, always in perfect alignment. Installation is unusually fast and neat. The finished wall weighs only  $3\frac{1}{2}$  pounds per square foot—light enough to go up right over old walls without additional structural support.

Six clear colors and a wide variety of sizes and shapes make Veos adaptable to any decorating scheme. And Veos tile is easy to keep clean. A quick wiping with a damp cloth or an occasional washing with soap and water will help maintain its first-day beauty permanently.

For washrooms, locker rooms, kitchens, and cafeterias, Armstrong's Veos Wall Tile is ideal. Consult your local Veos contractor for full details or write to Armstrong Cork Company, Building Materials Division, 3704 Frederick Street, Lancaster, Pa.

## ARMSTRONG'S VEOS WALL TILE

Porcelain



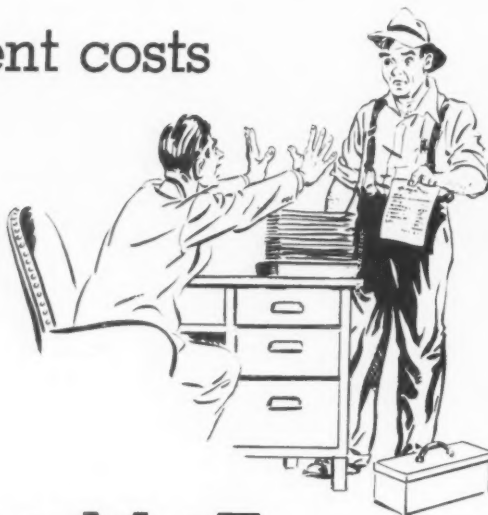
on Steel

*Reprint of Advertisement Appearing in Nation's Schools, April—Veos T-781B*

# Operating expenses are high enough



without adding unnecessary  
replacement costs



## Install Church Mol-Tex

(the seat that lasts)

## The First Cost is the Last



No. 9500  
Church Mol-Tex Seat



C. F. CHURCH MFG. CO.,  
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## NEWS . . .

at Charles University in Prague. They may complete their present terms but under the new ruling may not re-enroll and continue to draw payments provided under the G.I. Bill of Rights.

### Want More Music Taught

CHICAGO.—A survey conducted for the American Music Conference by an independent research organization reveals significant facts for educators. In general, Americans believe overwhelmingly that every child should get training on musical instruments in school. This should be paid for out of tax funds, should in most cases be free to the student, should be offered during school hours, and should carry credit toward graduation.

"Today music education in most schools is being handled far less intensively than public opinion prescribes," says Louis G. LaMair, president of the American Music Conference. "The survey shows that less than 20 per cent of the people now playing received any training in the schools."

### Elementary Science Course

BUFFALO, N.Y.—Beginning in the fall of 1948, the New York State College for Teachers at Buffalo will institute a program designed to train elementary teachers with a special competence in elementary science. This was in answer to a need for more science training for all general elementary teachers, discovered through a questionnaire sent to elementary school principals.

### Arithmetic Animated

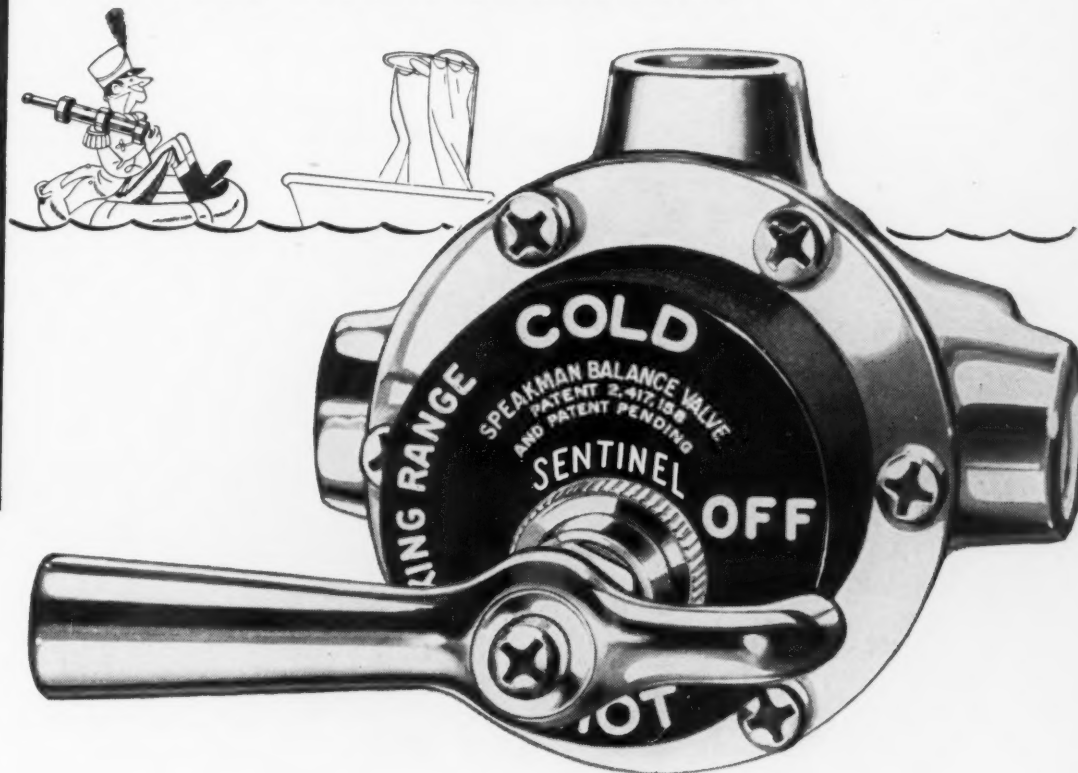
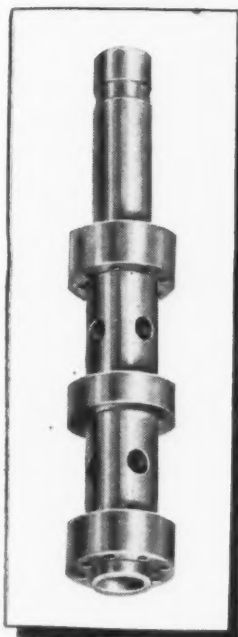
NEW YORK.—Five hundred teachers in elementary and junior high schools heard Prof. Foster E. Grosnickle, head of the mathematics department of the Jersey State Teachers College, tell of the new method of teaching arithmetic. He defined it as the kind of arithmetic which "teaches thinking and develops insight."

Mr. Grosnickle told how an educational project for army air cadets was turned from defeat into success when Disney-like animations were utilized to clarify mathematical concepts to the cadets. "It is a question of choosing between drilling until you know the answer automatically and discovering it for yourself by experience," he explained.

# NOW...FROM SPEAKMAN

## SENTINEL BALANCED PRESSURE SHOWER MIXING VALVE

With the F-l-o-a-t-i-n-g Sentinel  
that holds shower temperature steady!



**I**T'S REALLY here...an actual fact! And Speakman brings it to you! Think of it . . . a shower mixing valve that will not permit sudden changes in water temperature every time someone turns on the water "down the line."

Now, when a bather sets his shower...the spray *stays* that temperature. It's all done with the new patented Speakman Sentinel Balanced Pressure Valve and the F-l-o-a-t-i-n-g *Sentinel* that *auto-matically* maintains shower temperatures by compensating for "down the line" water stealing . . . without the bather ever knowing anything is happening!

Not only does the *Sentinel* Valve compensate for minor water stealing . . . but, should the drain on the water become so severe as to cut off either the hot or cold supply entirely . . . the valve shuts

off the flow of *all* water to the shower head . . . and keeps it shut off until the pressure is restored. When pressure returns, the *Sentinel* restores the flow to the head . . . at the same temperature as originally set!

The Speakman *Sentinel* Valve is completely foolproof. There's nothing to get out of order . . . no thermostats, no rockers, no springs, no gadgets! The *Sentinel* works on water pressure alone! And, if excessive alkali or other water deposits ever coat the F-l-o-a-t-i-n-g *Sentinel*, it can be easily removed for cleaning without turning off the water supply to the valve!

Find out about this amazing new *Sentinel* Balanced Pressure Valve. Write for free folder showing both exposed and concealed shower models.

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**SPEAKMAN**  
SHOWERS AND FIXTURES

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## NEWS . . .

### Lighting Institute in Florida

ST. PETERSBURG, FLA.—The South-eastern School Lighting Institute and School Lighting Exhibit will be held at Mirror Lake Junior High School from April 19 to 21. The institute is sponsored by the Prevention of Blindness Division of the Florida Council for the Blind. Dr. Louis J. Coleman of St. Petersburg is the general chairman. A part of the school building will be re-decorated and relighted for the event,

all labor and materials being donated by the local unions and by the manufacturers and distributors.

### UNESCO Project in Africa

LAKE SUCCESS, N.Y.—An experiment is to be tried in Nyasaland, British protectorate in Africa, under the sponsorship of UNESCO and in collaboration with the Nyasaland government and British authorities. An attempt will be made to raise living standards in a

tribal agricultural community. Teaching will be done, first, in the native language and then in English, using the latest educational technics and materials. These will include films and phonographs. Methods and materials will be adapted to the needs and thinking of the natives.

### Site Purchased for High School

WAUKESHA, WIS.—A 45 acre site has been purchased by school officials for a new high school building. Building plans are not expected to materialize before five years.

### Movie Projectors Prizes

CHICAGO.—In the struggle of the Chicago school system to keep its elementary school lunchrooms out of the red, a contest was conducted for the best suggestions by schools for making lunchrooms self sustaining. The first prize to be awarded was a sound motion picture projector; the second prize, a silent projector, and the third, a slide machine. An anonymous donor provided the prizes.

### Tour of British Isles

NEW HAVEN, CONN.—A field trip to Great Britain, similar to one conducted last year, will be sponsored this summer by the department of education at Yale University. A limited number of students, preferably those interested in teaching, will visit schools, confer with leaders in British public life, and observe customs. Eight hours' credit, or a quarter of a year's graduate credit, will be granted. Information can be obtained from Prof. George F. Kneller. Veterans may make special arrangements through the Veterans Administration.

### Prefer Rural Schools

CARBONDALE, ILL.—A poll of 2500 farm parents in southern Illinois disclosed that 87 per cent prefer good rural schools to good city schools. They want their children to go to large, well equipped consolidated schools but want such schools located in rural areas. They are not opposed to consolidation or reorganization as long as the school is located in the country. They favor a good eight-teacher country school over a one-teacher school. The poll was conducted in six counties by university graduate students in cooperation with school survey committees.

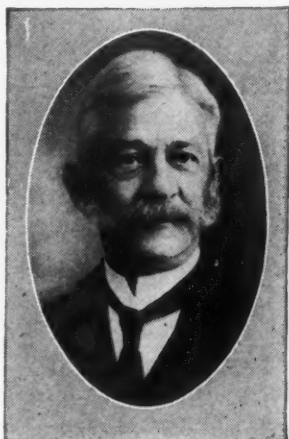
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## NEWS...

### Study Vision Testing Methods

ST. LOUIS.—A study seeking to evaluate methods and instruments used to test the vision of school children who may need eye care is now under way in twenty elementary schools. Teachers, nurses and a technician run the children through the various tests, after which all children are to receive an eye examination by oculists at Washington University Eye Clinics. It is expected that the entire study will take a year.

Sponsors of the project are the National Society for the Prevention of Blindness, the U.S. Children's Bureau, and the Missouri Division of Public Health, with the city board of education and Washington University co-operating.

### Janitor Loved His School

NORMAL, ILL.—When Carter Harris, Negro janitor at Illinois State Normal University for forty-eight years, died in 1944, he left an estate of \$13,000. Of this amount, \$2200 was left to the student loan fund of the school, it was disclosed when the estate was settled recently. Mr. Carter had always been a supporter of the school's athletic teams, and one year donated a football trophy to the school on which the name of the most valuable player is engraved each year.

### Too Many Furnaces to Tend

DAYTON, OHIO.—Tending fires in a school which has thirteen furnaces proved too much for Garret H. Pump-ley, aged 57. When Mr. Pumpley was taken ill recently, the doctor said he was a victim of overwork.

### Yellow School Buses in N.Y.

ALBANY, N.Y.—Governor Thomas E. Dewey signed a bill requiring publicly owned school buses to be painted "national school bus chrome," a shade of yellow. The law does not apply to privately owned buses, to vehicles having a capacity of fewer than twelve passengers, or public vehicles not used exclusively to transport pupils. This color has been approved by the National Safety Council for use in every state.

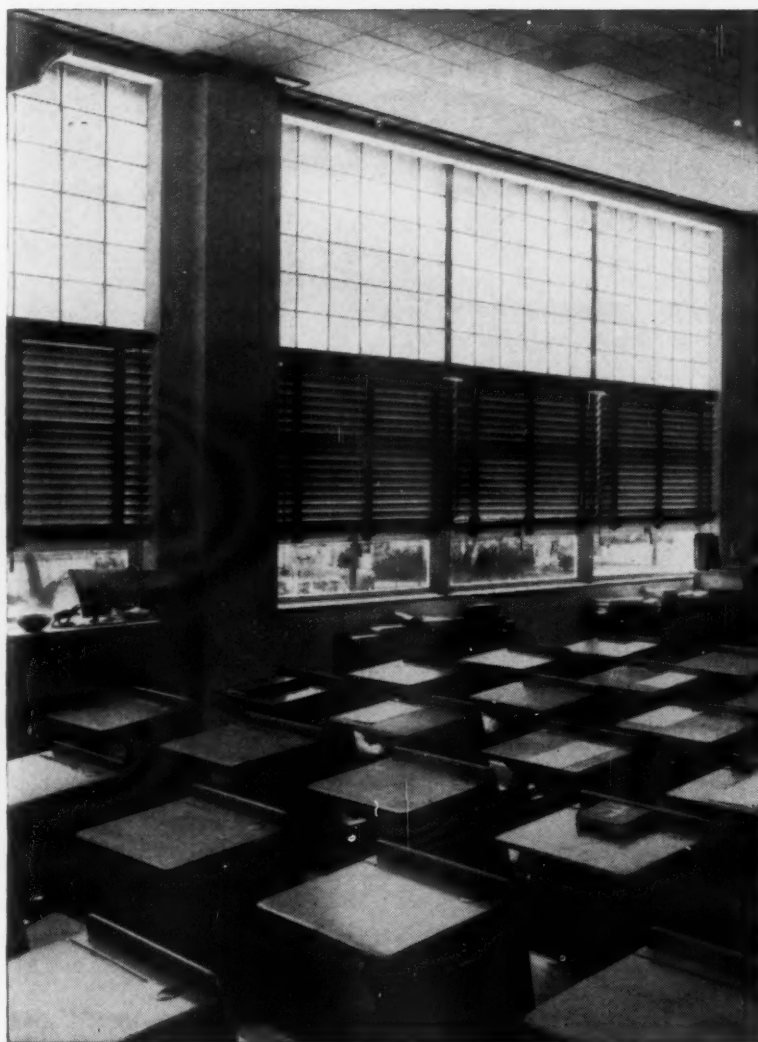
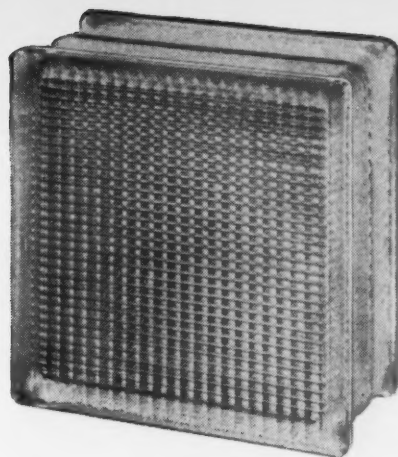
### Aid Mentally Retarded Children

CHICAGO.—Mentally handicapped children who can be taught will benefit by the study and research now being conducted by the Illinois Commission



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## NEWS . . .

for Handicapped Children. No real census of the number of these children in Illinois has ever been made, but a conservative guess ranges from 70,000 to 100,000. The commission feels that two great needs exist—more special classes in local schools and a more intensive program of parent education.

The commission's attention is now being directed toward the mentally retarded who are educable. The state has appropriated funds, up to \$250 per year per student, for special classes in local

schools, but there is a need for more of them. Also, there is the need for specially trained teachers in these classes.

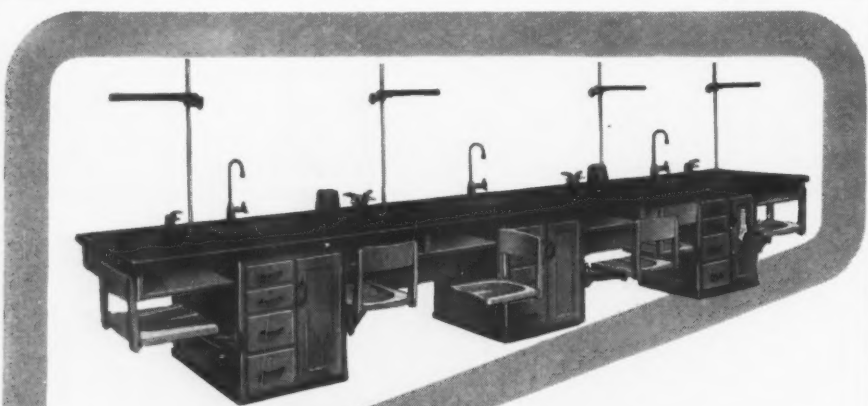
### Adult Negroes Learn to Read

ATLANTA, GA.—More than 800 Negroes, ranging in age from 30 to 50, are learning to read and write in a project financed by the Carnegie Corporation of New York. The project is based on findings of the selective service system, adapted from army developed technics and sponsored by the U.S. Office of Education.

### Need School Psychologists

CHICAGO.—Norman Watson, superintendent of schools at Northbrook, Ill., speaking before teachers from Cook County schools, said that more and more children need the attention of school psychologists. Participating in an institute on school health programs sponsored by the superintendent of Cook County schools, Mr. Watson declared, "We're either going to do mental health work in our schools, or we're going to have teachers armed with baseball bats."

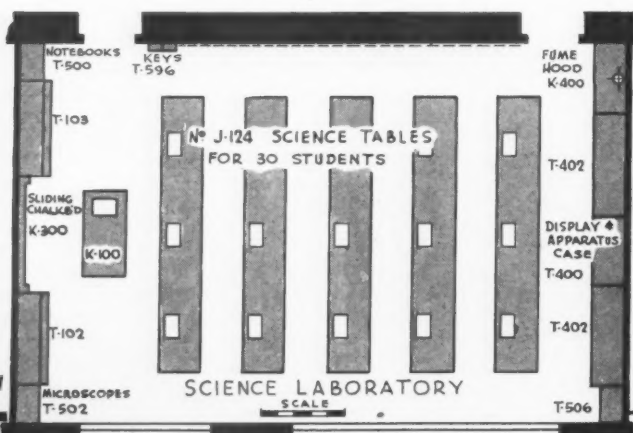
Dr. Edward A. Piszczek, director of the county health department, told the group that the department will start a mental health program for children in another year. Two staff members are taking mental hygiene training now, he said, and will be prepared to deal with home and other conditions which make maladjusted children.



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### COMING EVENTS

#### APRIL

14-16. Kentucky Education Association, Henry Clay Hotel, Louisville.

17-22. Music Educators National Conference, Detroit.

19-23. American Association of Health, Physical Education and Recreation, Kansas City, Mo.

23, 24. Idaho Education Association, Boise.

25-28. International Council for Exceptional Children, Des Moines.

29, 30. Mid South Conference on Rural Life and Education, Fort Worth, Tex.

#### MAY

10-12. American Association for Adult Education, Des Moines.

16-19. N.E.A. Conference on Citizenship, Washington, D.C.

24-26. National Congress of Parents and Teachers, Cleveland.

#### JULY

5-9. National Education Association, Cleveland.

12, 13. N.E.A. Department of Classroom Teachers, Oxford, Ohio.

#### AUGUST

8-11. National Association of Visual Education Dealers, Hotel Sherman, Chicago.

#### SEPTEMBER

30-Oct. 2. National Conference of County and Rural Area Superintendents, Milwaukee.

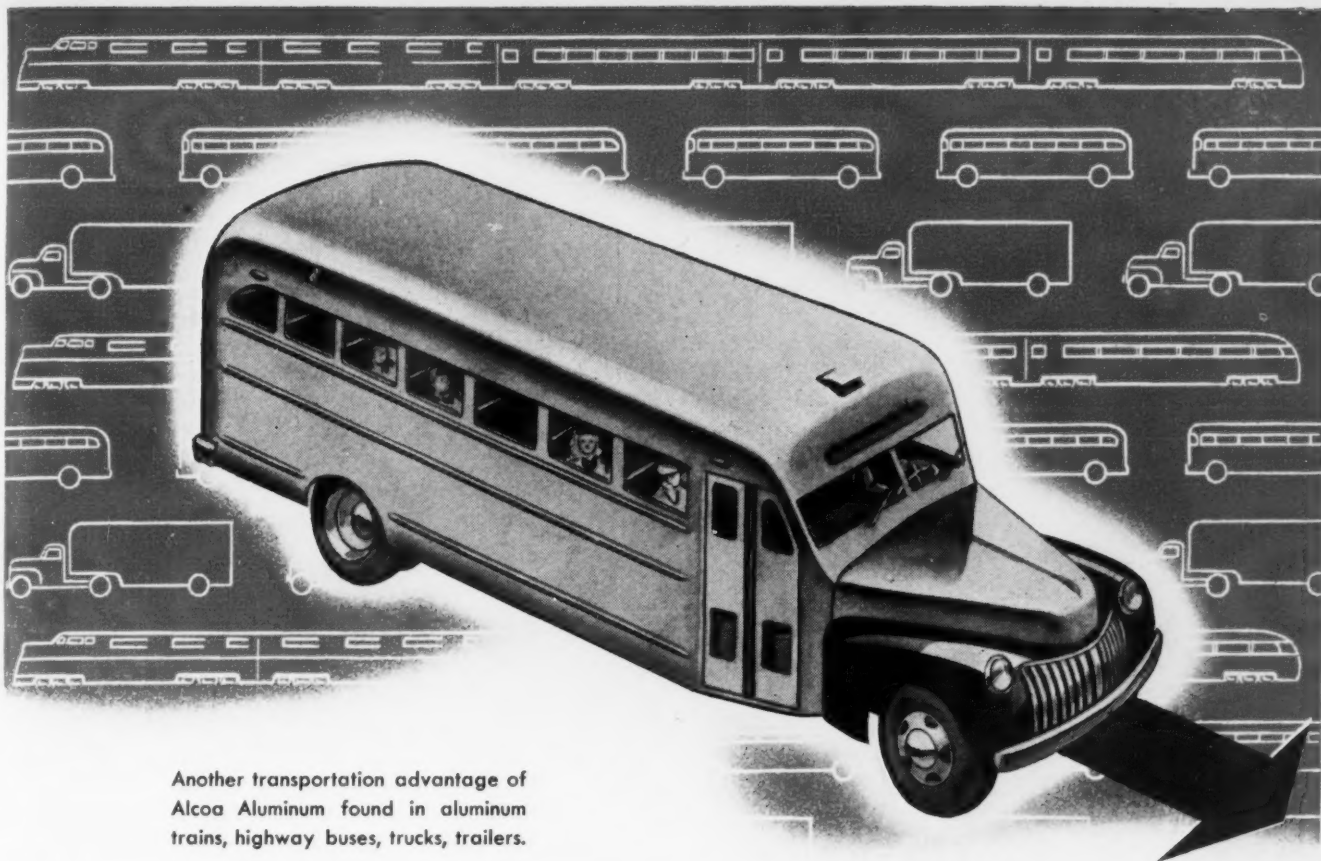
#### OCTOBER

3-8. National School Bus Conference, Jackson's Mill, W. Va.

10-14. Association of School Business Officials, St. Louis.

#### NOVEMBER

7-13. American Education Week.



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## THE BOOK SHELF

Printed publications of interest to school administrators are listed as received

### ADMINISTRATION

**Administration of the Modern Secondary School.** Third edition. By J. B. Edmonson, University of Michigan; Joseph Roemer, George Peabody College for Teachers, and Francis L. Bacon, Evanston Township High School. Macmillan Co., 60 Fifth Ave., New York City. Pp. 690. \$4.

**Teach Them All in Elementary Schools.** Summary of "Education for All American Children." By the Educational Policies Commission and the Department of Elementary School Principals. National Education Association, 1201 Sixteenth St., N.W., Washington, D.C. Pp. 32. 35 cents.

**A.S.T.M. Standards on Soaps and Other**

**Detergents.** Includes extensive bibliography on metal cleaning. American Society for Testing Materials, 1916 Race St., Philadelphia 3. Pp. 170. \$2.

### ANNUAL REPORT

**Looking Forward With the Austin Public Schools, 1946-47.** By Samuel T. Neveln, supt., Austin, Minn. Pp. 101.

### AUDIO-VISUAL

**Audio-Visual Materials and Methods in the Social Studies.** William H. Hartley, editor. Eighteenth Yearbook of the National Council for the Social Studies, 1201 Sixteenth St., N.W., Washington 6, D.C. Pp. 214. \$2, paperbound; \$2.50, clothbound.

### CURRICULUM

**Children and Books.** A study of the interests and needs of children from pre-school age through junior high school. By May J. Arbuthnot, Flora Stone Mather College, Western Reserve University. Scott, Foresman and Co., Chicago. Pp. 640. \$3.60.

**Adapting Instruction in Reading to Individual Differences.** By Guy L. Bond, University of Minnesota, and Bertha Handlan, formerly University of Colorado. Individualization Instruction Series, No. 5. University of Minnesota Press, Minneapolis 14. Pp. 82.

**Using Community Resources.** Illustrative experience units for grades one to six. By the Elementary Demonstration School Faculty, University of Minnesota. Individualization Instruction Series, No. 6. University of Minnesota Press, Minneapolis 14. Pp. 102.

**Teaching of Arithmetic.** By Herbert F. Spitzer, State University of Iowa. Houghton Mifflin Co., 2 Park St., Boston. Pp. 397. \$3.

**Modern-School Geometry.** New edition. By John R. Clark, professor of education, Teachers College, Columbia University; and Rolland R. Smith, coordinator of mathematics, Springfield, Mass., public schools; with the cooperation of Raleigh Schorling, head, department of mathematics, University High School, University of Michigan. World Book Co., Yonkers-on-Hudson, N.Y. Pp. 436.

### GUIDANCE

**Mapping Your Education.** A guide planned education in Oregon and Washington. A cooperative project of the Interstate Committee on High School-College Relations. James, Kerns & Abbot Co., 338 N.W. 9th Ave., Portland 9, Ore. Pp. 210.

### PUBLIC RELATIONS

**Public Relations in Secondary Schools.** Prepared under the direction of Leslie W. Kindred, professor, secondary-school administration and supervision, Teachers College, Temple University, Philadelphia. National Association Secondary-School Principals, N.E.A., 1201 Sixteenth St., N.W., Washington 6, D.C. Pp. 342. \$1.

### SAFETY

**Education for Safety.** A handbook for teachers. Vol. XVI, No. 5 (December, 1947) Bulletin of the California State Department of Education, Sacramento 14. Pp. 94.

**Invitation to Live.** Planned and printed with advisory help of the National Safety Council by the Printograph Company, Kansas City, Mo. Cartoons by Paul Murphy, former staff member, Walt Disney Productions. Pp. 74. 32 cents.

**Safety for the Household.** Includes information pertinent to construction and safe operation of schools. National Bureau of Standards Circular 463. U.S. Government Printing Office, Washington 25, D.C. Pp. 190. 75 cents.

### TEACHING AID

**Better Teaching Through the Use of Current Materials.** A report on a study in English, science, and social studies classes by the California Council on Improvement of Instruction. Prepared by Lucien Kinney and Reginald Bell, Stanford University School of Education. California State Department of Education, Sacramento 14. Pp. 24.

### OF GENERAL INTEREST

**Our Federal Constitution.** By Lorin E. Bixler, Homer Hurst and John H. Bright. Occasional Studies No. 2. Muskingum College Bulletin, New Concord, Ohio. Pp. 44.

**Report of the Second National Conference on Citizenship.** Sponsored by the Citizenship Committee and the N.E.A. Commission for the Defense of Democracy Through Education with cooperation of the U.S. Department of Justice. National Education Association, 1201 Sixteenth St., N.W., Washington 6, D.C. Pp. 104.

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## Names in the News . . .

(Continued From Page 45.)

Winchester, Ill., has resigned, after fourteen years' association with the school.

Donald R. Wilson is the new principal of Safford High School at Safford, Ariz. He was formerly vice principal.

Charles S. Lofton, director of the Negro Veterans' High School Center, Washington, D.C., has been appointed principal of Dunbar High School. He succeeds Dr. H. A. Haynes who was made assistant to Dr. Garnet C. Wilkinson, first assistant superintendent.

Mary E. Ritchie, formerly principal of the Phillips Avenue School, New Bedford, Mass., has been named principal of the John Hannigan School succeeding Mary F. Calden, retired. Mary Lutz, teacher at the John Hannigan School, succeeds Miss Ritchie at Phillips Avenue School.

## IN THE COLLEGES

Hamilton Holt, president of Rollins College since 1925, has tendered his resignation to become effective July 1, 1949.

Dr. Philip Milo Bail, dean of the College of Education, Butler University, Indianapolis, has been elected president of the University of Omaha. He succeeds Rowland Haynes who has been named president emeritus after holding the office of president since 1935.

Dr. Martin P. Chworowsky has been named professor of education and head of the new intergroup and intercultural education at Teachers College, Columbia University. Dr. Chworowsky is assuming his new duties during the current term, but the program will not start until fall. He served last year as associate director of the commission on educational organizations of the National Conference of Christians and Jews. During the summers of 1946 and 1947 he directed the intergroup workshops at the University of Denver and at the University of Wisconsin, respectively.

Frank W. Phillips, professor of education at Monmouth College, Monmouth, Ill., has been appointed dean of men, in addition to his other duties.

Terry Wickham, superintendent at Hamilton, Ohio, has accepted the presidency of Heidelberg College, Tiffin, Ohio, as of July 1.

The Rev. J. Eugene Gallery, S.J., has been installed as fourteenth president of the University of Scranton, Scranton,





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RICE HOTEL, HOUSTON  
PHOTO BY PERALTA STUDIO



## NEWS . . .

Pa., succeeding the *Very Rev. W. Coleman Nevils, S.J.*

### DEATHS

*Fred B. Miller*, superintendent emeritus of Normandy Public Schools, St. Louis, Mo., since last July, and before that active superintendent for thirty-four years, died recently. He was 68 years old. Mr. Miller was among the first to have free textbooks in his schools. The first vocational school west

of the Mississippi was begun under his supervision. He is credited with establishing the first P.-T.A. west of the Mississippi.

*Maurice A. Garfinkel*, principal of Winthrop Junior High School, Brooklyn, N.Y., died recently at the age of 62. Mr. Garfinkel was a member of the junior high school curriculum planning committee of the board of education and a member of the New York Academy of Public Education.

*Dr. John H. MacCracken*, former president of Lafayette College, died recently at the age of 72.

*The Rev. Brother Cassian Marcellus*, principal of De La Salle Academy at Newport, R.I., died recently at Providence, R.I., at the age of 52.

*J. P. Kay*, superintendent at Otterville, Mo., died recently at the age of 59. Mr. Kay served as superintendent of schools of Moniteau County for twenty years, going to Otterville in 1942, first as a teacher and for the last year as superintendent.

*Mrs. Henrietta Rinaldo Scheider*, retired principal of Public School 401, New York City, and long a leader in the education of disabled and invalid children, died recently. She had been with the New York school system since 1896. Public School 401 was known as the "school without a schoolhouse," the board of education giving the designation of 401 to special courses for crippled, cardiac and paralyzed children. At the time of Mrs. Scheider's retirement five years ago, the "school" had classes in fourteen hospitals and institutions with an enrollment of 600. In the face of great opposition, Mrs. Scheider won acceptance for her idea that young victims of spastic paralysis could become normal pupils in special classes under specially trained teachers.

*Dr. Matthew Howell Reaser*, president of the board of trustees of Edgewood Park School, Briarcliff Manor, N.Y., a girls' school which he founded in 1936, died recently at the age of 85. Dr. Reaser was a former president of Lindenwood College at St. Charles, Mo., and of Wilson College at Chambersburg, Pa. In 1912 he founded Beechwood School in Jenkintown, Pa.

*William E. Hewitt*, principal of the Watertown High School, Watertown, N.Y., for fourteen years, died recently at the age of 60.

*Isabelle E. Dorsey*, principal of Public Schools 1 and 7 at Perth Amboy, N.J., died recently.

*Ronald R. Welch*, principal of Glenside-Weldon Junior High School, Norristown, Pa., died recently at the age of 60.

*Mrs. Lucille B. Hinman*, principal of Lake Forest Day School, Lake Forest, Ill., died recently at the age of 54. Mrs. Hinman had been with the school since 1933 and had been principal since 1942.

## Makes a classroom ... anywhere ... in a jiffy!

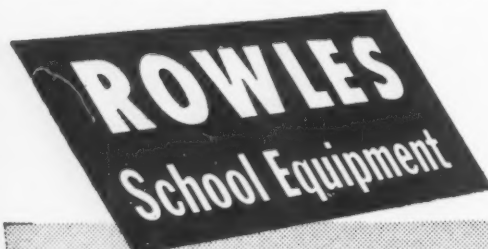


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such machines has become a requisite for acceptance in the most desirable positions.

Your local National representative will be happy to give you full information, and to recommend the most efficient and economical installations for your school. Call him today. Or, write to The National Cash Register Company, Dayton 9, Ohio. Sales and Service Offices in over 400 cities.



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## NEWS . . .

### College Scholarships to 121

PALO ALTO, CALIF.—The Pepsi-Cola Scholarship Board has announced the names of 121 high school seniors across the nation to receive scholarships having a total value of \$330,000. These awards will send them to college with full tuition, a monthly allowance, and traveling expenses paid for four school years. The winners were chosen from among 46,112 superior students elected to represent 10,629 high schools in the United States, Alaska, Hawaii and Puerto Rico which participated in the

fourth annual competition. A student in South Senior High School at Youngstown, Ohio, ranked highest in the contest.

### For Board Members' Benefit

CHICAGO.—A yearly course for school board members has been proposed by Mrs. H. M. Mulberry, a member of the city's school board. The purpose would be to acquaint members with methods and technics of education and to provide background information regarding the city's schools.

### P.-T.A. Protests Book Ban

NEW YORK.—The parent-teacher association of the DeWitt Clinton High School, the Bronx, has protested against the banning of "Gentleman's Agreement" and "Focus" from the school library. According to Dr. John V. Walsh, principal, the books were banned on the advice of the librarian because the one "makes light of extramarital relations," while the other is "offensive to the Roman Catholic Church."

### Higher Education Directory

WASHINGTON, D.C.—The U.S. Office of Education has issued its 1947-48 "Directory of Higher Education." Approximately 1700 colleges, universities and technical schools are listed. Information for each institution includes location; accreditation; type of control; whether the school is co-educational, and the names of the chief administrative officers.

Copies are available for 30 cents each through the superintendent of documents, Government Printing Office, Washington 25, D.C.

### Urges Changes in V.A. Set-Up

WASHINGTON, D.C.—Following action at its annual meeting, an 18-man delegation of the American Vocational Association has urged the U.S. Commissioner of Education "to reestablish a sound set-up at the national level and to provide more professional services through vocational education."

### Analyzes Public Relations

CAMDEN, N.J.—"Facts About Our Public Relations" is a special chapter in the annual report of Supt. Leon N. Neulen. He reviews space devoted to school news by the city's newspapers during 1947, mentions service clubs and other organizations and lists the many activities of the parent-teacher organizations. His discussion of the role of the schools in public relations includes a tabulation of the after-school use of school buildings.

In addition to a statistical and financial report, the blue and buff booklet contains information about the curriculum in the elementary and secondary schools; about special classes, in sight-saving, for crippled children and adult citizenship, and about student activities and organizations.



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DROPS  
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BRITEN-ALL  
MAKE YOUR  
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SPARKLE!**

**VESTA-GLOSS Floor Finish**  
A scientifically prepared water-proof heavy duty floor finish that dries to a bright, uniform lustre, without polishing. Combines these six advantages (1) Protection (2) Wear Resistance (3) Water Resistance (4) Slip Resistance (5) Lustre (6) Self Leveling.

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FLOOR MACHINE**

Scrubs and polishes  
**EASIER...FASTER.**





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The dining halls of a famous southern school are served from this modern GAS kitchen →



**FOR PERFECT RESULTS  
IN VOLUME COOKING  
*GAS HAS GOT IT!***

**OPPORTUNITIES** for profit, and for the application of money-saving ideas, offer a constant challenge to alert food service executives concerned with volume cooking.

Since every ingredient is a vital element in budget control, including fuel evaluated on a cost-per-service basis, GAS and modern Gas Equipment are particularly important factors.

GAS is an economical fuel, singularly applicable to volume cooking operations because it is so flexible and so readily controlled. Modern GAS cooking tools, reflecting the characteristic advantages of GAS, are simple, easy to clean, and inexpensive to maintain.

Every volume cooking and food service function is a logical task for GAS. Compared with other available fuels GAS is unequalled for

- roasting    ● deep-fat frying    ● coffee brewing
- baking    ● vegetable steaming    ● steam kettle cooking
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You'll find efficient, modern Gas Equipment to serve every one of your volume cooking requirements. Your Gas Company will aid you in selecting the most suitable type and size.

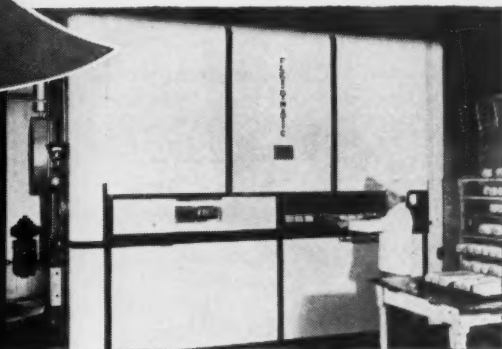


#### CLUB

An exclusive eastern club, famed for its food, recently modernized its facilities by installing this modern GAS kitchen →



**HOSPITAL**—This modern, automatic revolving tray GAS oven supplies a mid-Western state hospital with bread and other baked goods ↓



**HOTEL**—One of the great hotels in the Pacific Northwest installed this sparkling stainless steel GAS kitchen to meet increasing demands on its food service department ↓



**YWCA**—Patrons of this well-known YWCA are served Southern delicacies from this compact GAS kitchen ↓



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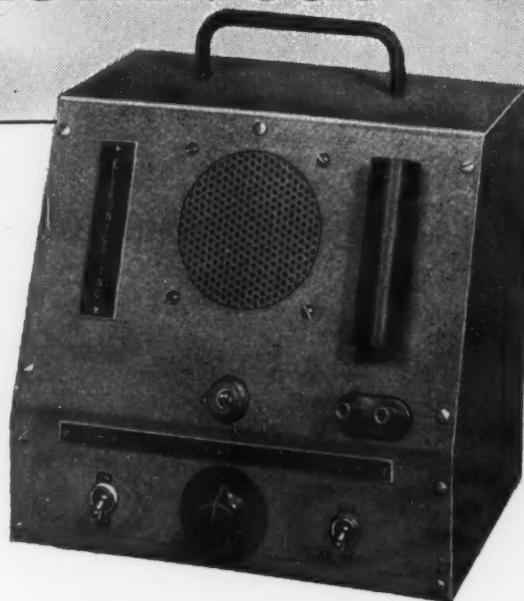
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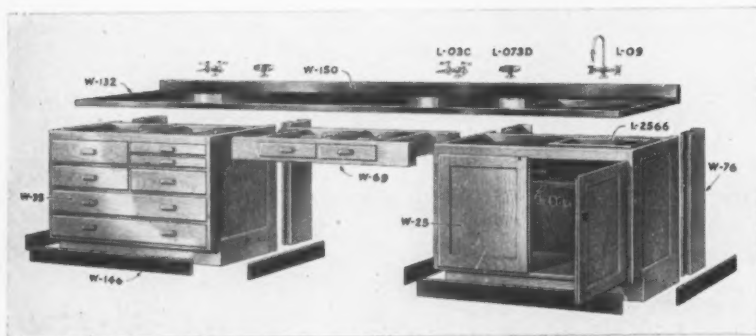


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The new McCray Reach-Ins set a fast, modern pace in your busy kitchen. Their many convenience features speed up service...make the job easier.

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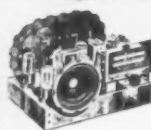
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*Food savings with  
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for itself*



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**Hotpoint Electric Cooking Equipment** always assures better food at lower preparation cost and brings you 7 big savings every day.

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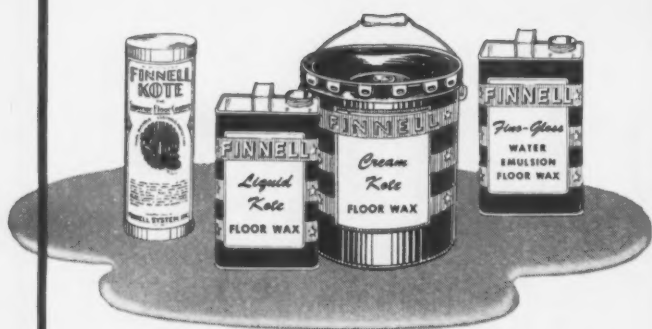
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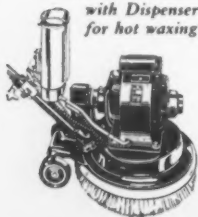
In these days of high labor costs, it pays especially to choose waxes that require less frequent application. *Finnell Waxes* do because of their greater genuine wax content. *Finnell-Kote Spirit Wax*, for example, has a wax content three to four times greater than average floor wax. Such a wax not only affords better protection, but shows substantial savings in labor costs, on a year-to-year basis, as a result of fewer applications required.

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A 600 Series Finnell  
with Dispenser  
for hot waxing



For consultation or literature, phone or write nearest *Finnell* branch or *Finnell System, Inc.*, 204 East St., Elkhart, Ind.



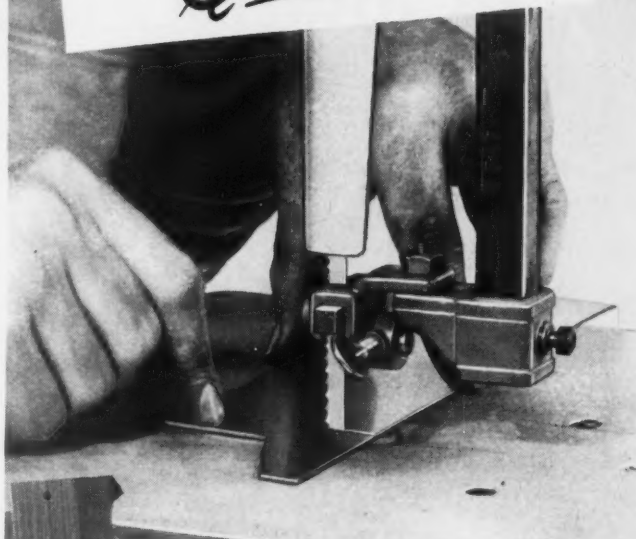
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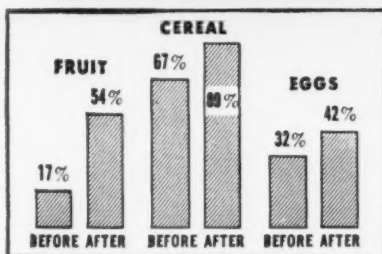
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The NATION'S SCHOOLS



#### NUTRITION TRAINING PAYS



This graph shows the percentage of children's breakfasts that included certain food groups before and after one year of emphasis on nutrition.

#### MATERIALS ARE FREE



Write for information about our complete materials and services for developing school-community nutrition and health education programs.

## "Shake-up" in Nutrition Teaching

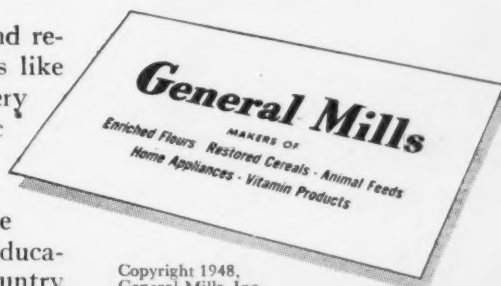
Where are the books and pencils? Put away, just for the present, while these lively first graders from Texas embark on a fascinating project in their study of foods.

The subject is milk. It is being highlighted by a simple butter-churning session—the children taking turns shaking cream in fruit jars and eagerly awaiting the moment when they can spread their homemade product on bread and eat it.

Reports of imaginative and resourceful nutrition activities like this reach General Mills every day. Starting with basic materials and suggestions provided through General Mills "Program of Assistance in Nutrition and Health Education," teachers all over the country

are adapting these materials to fit their own particular problems and curriculum. And they're reporting definite improvement in children's eating habits as the encouraging result of this teaching!

If you would like to know more about introducing nutrition training in your class, write to: Education Section, Public Services Department, General Mills, Minneapolis 1, Minnesota.



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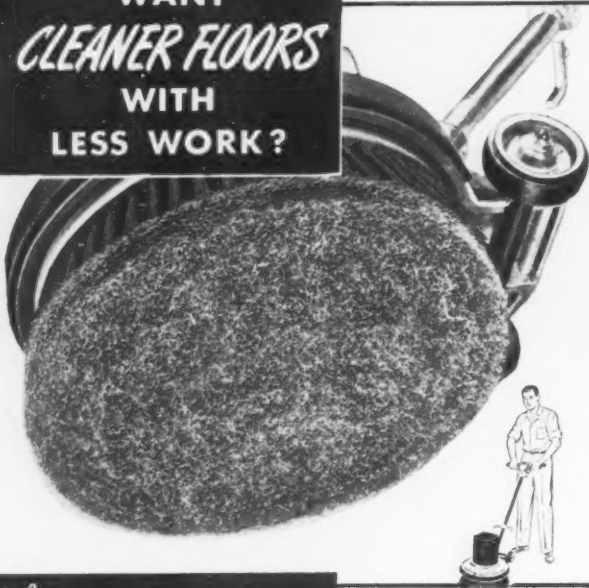


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GO FURTHER  
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NEW MULTI-CLEAN  
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9 JOB FLOOR MACHINE**

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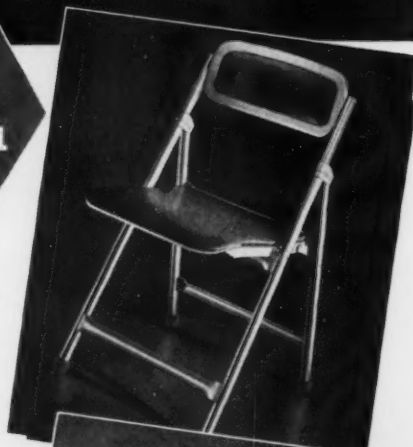
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**G**OOD salads are one sure signpost of a good place to eat. And you may be sure that wherever they're featured particular attention is paid to the dressing.

Since your "salad reputation" depends so greatly on the flavor and quality of the dressing you use, it is false economy to top good salad makings with mediocre dressing.

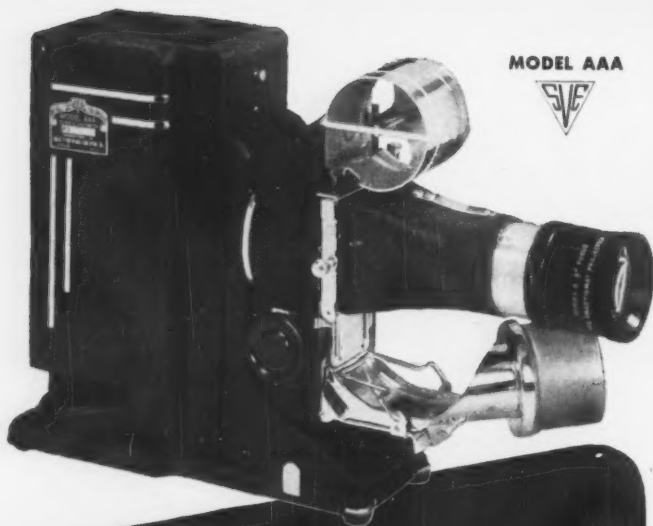
Prepared from famous Heinz aged-in-wood vinegars, fresh eggs, fine oil and other choice ingredients, Heinz 57 Salad Dressing points up the flavor of your salads to perfection.

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## HEINZ SALAD DRESSING





MODEL AAA



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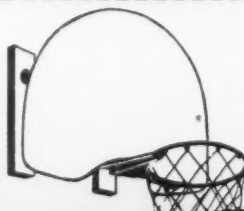
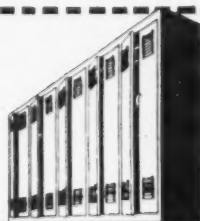
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75 years in serving the nation's schools has given Medart unquestioned leadership in the field of gym and locker room equipment and physical educational apparatus. During these years Medart has pioneered the development of new ideas and improvement which has earned for Medart products the slogan "the standard of comparison." Medart leadership and experience are your assurance of sound investment when you buy equipment made by . . . Medart of St. Louis.

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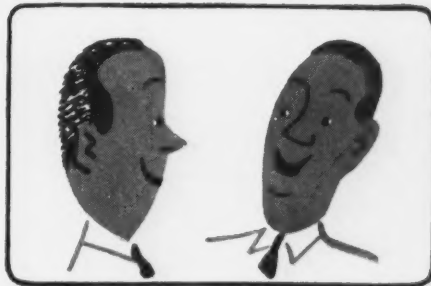
\*"CCC" means Columbia-Controlled-Construction

## Columbia

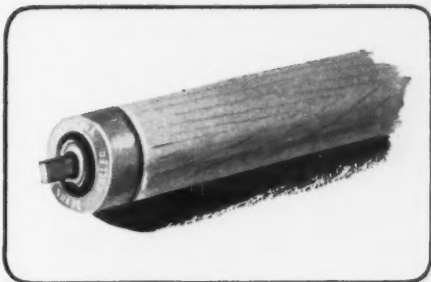
WINDOW SHADES  
AND VENETIAN BLINDS

THE COLUMBIA MILLS, INC. • 225 FIFTH AVENUE, NEW YORK 10, N. Y.

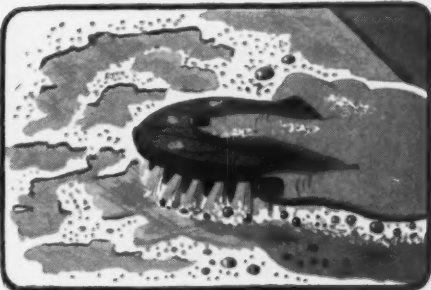
Vol. 41, No. 4, April 1948



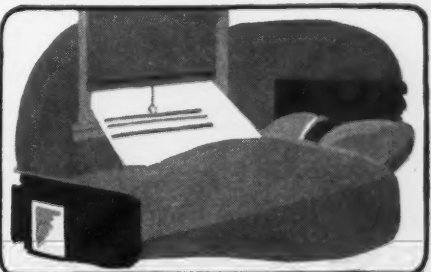
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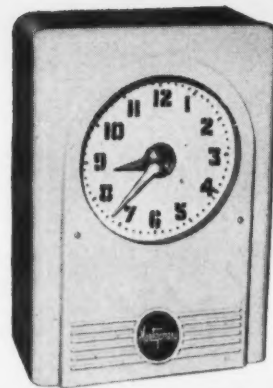
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The NATION'S SCHOOLS



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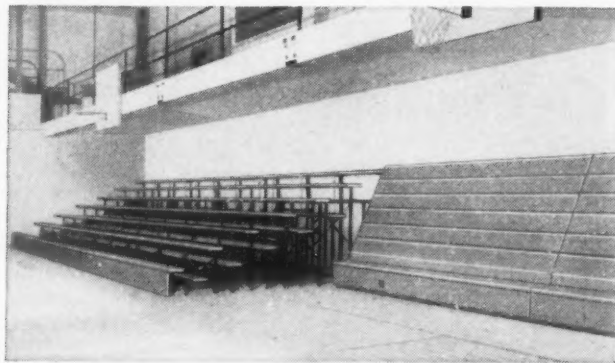
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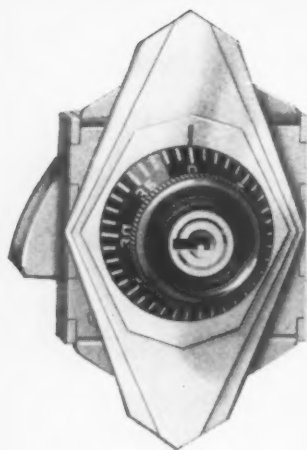
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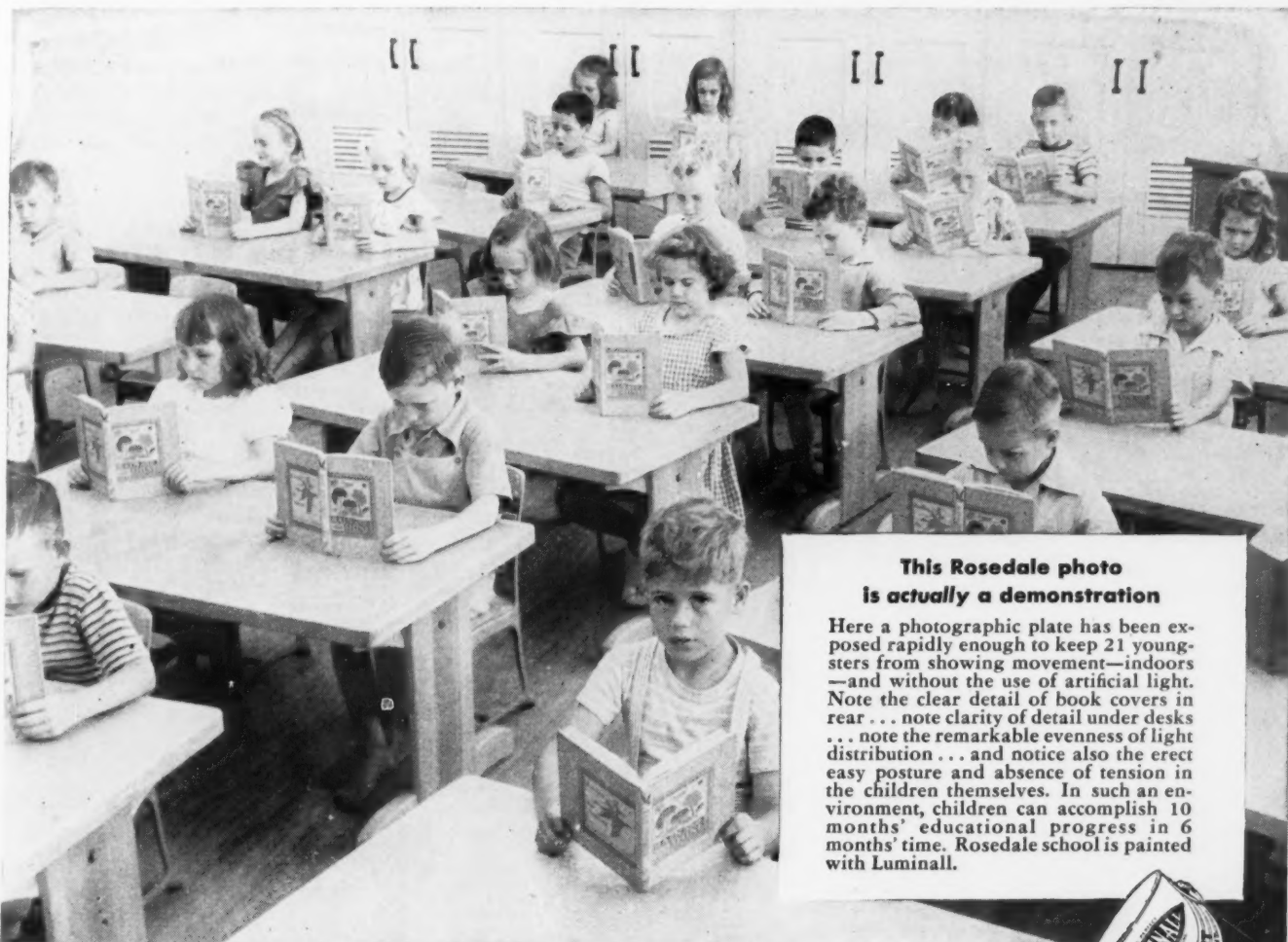
For example: Ten months' educational progress was made in only six months . . . important reductions were recorded in eye and nutritional problems . . . and 30% less signs of chronic infection.

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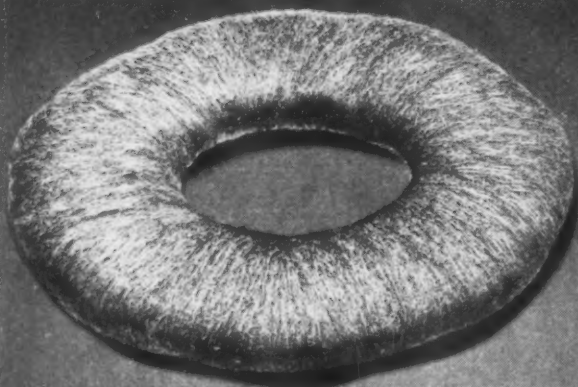
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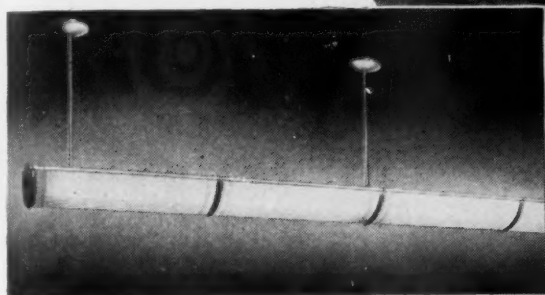
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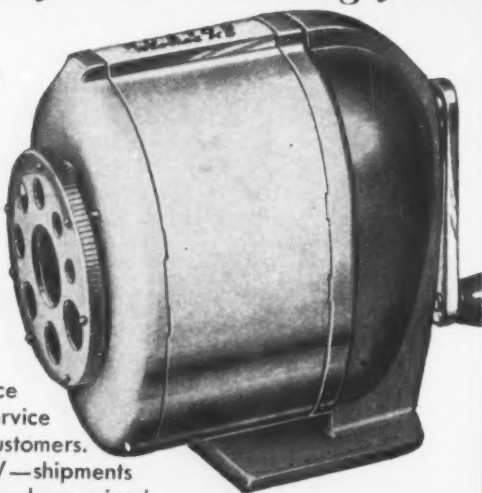




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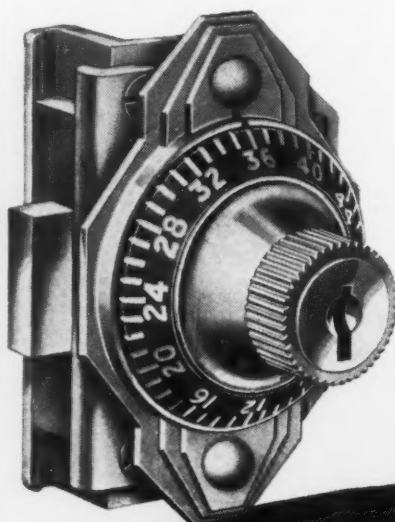
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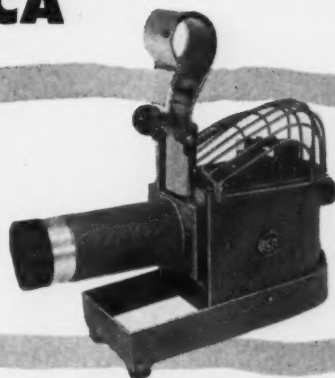
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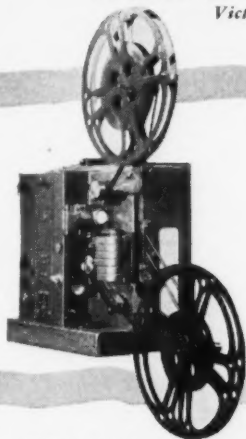
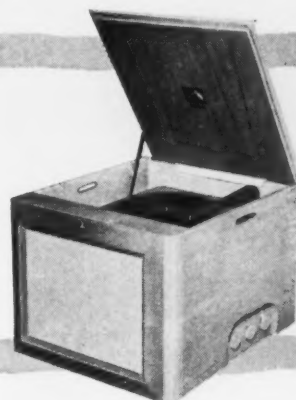
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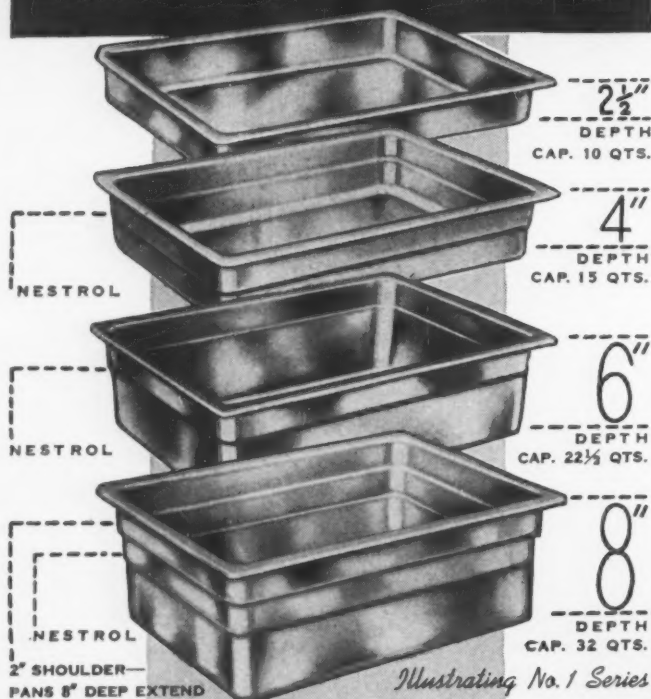


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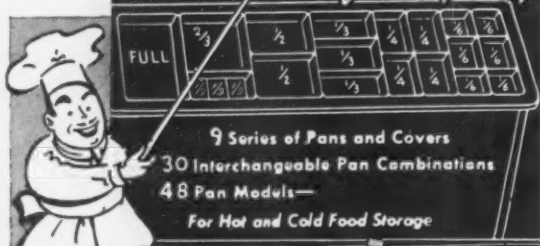
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THROW AWAY ONE  
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THROW AWAY ONE**

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*"NO-GEAR" PEELER*



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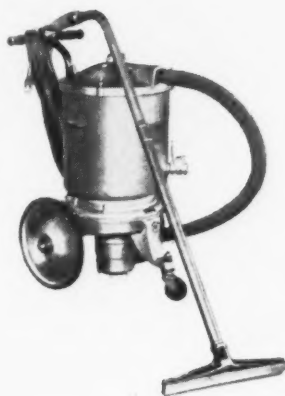
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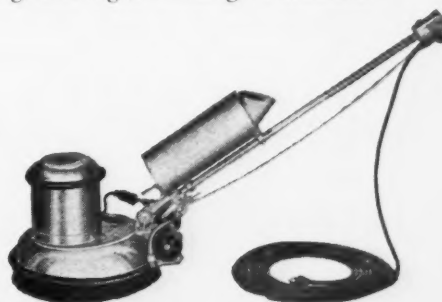
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\*Pat. Pend.

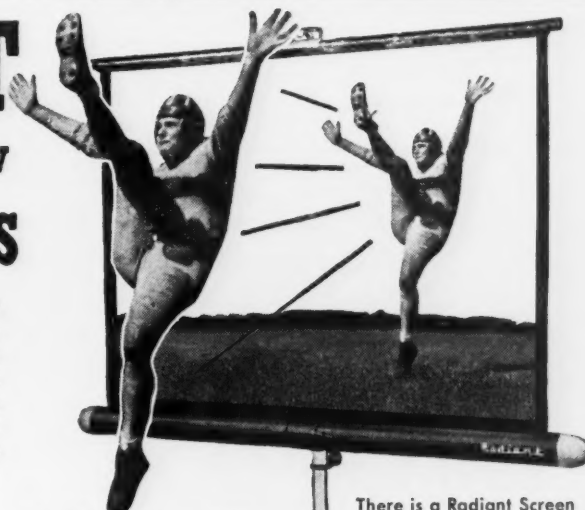
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OF GOOD  
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April, 1948

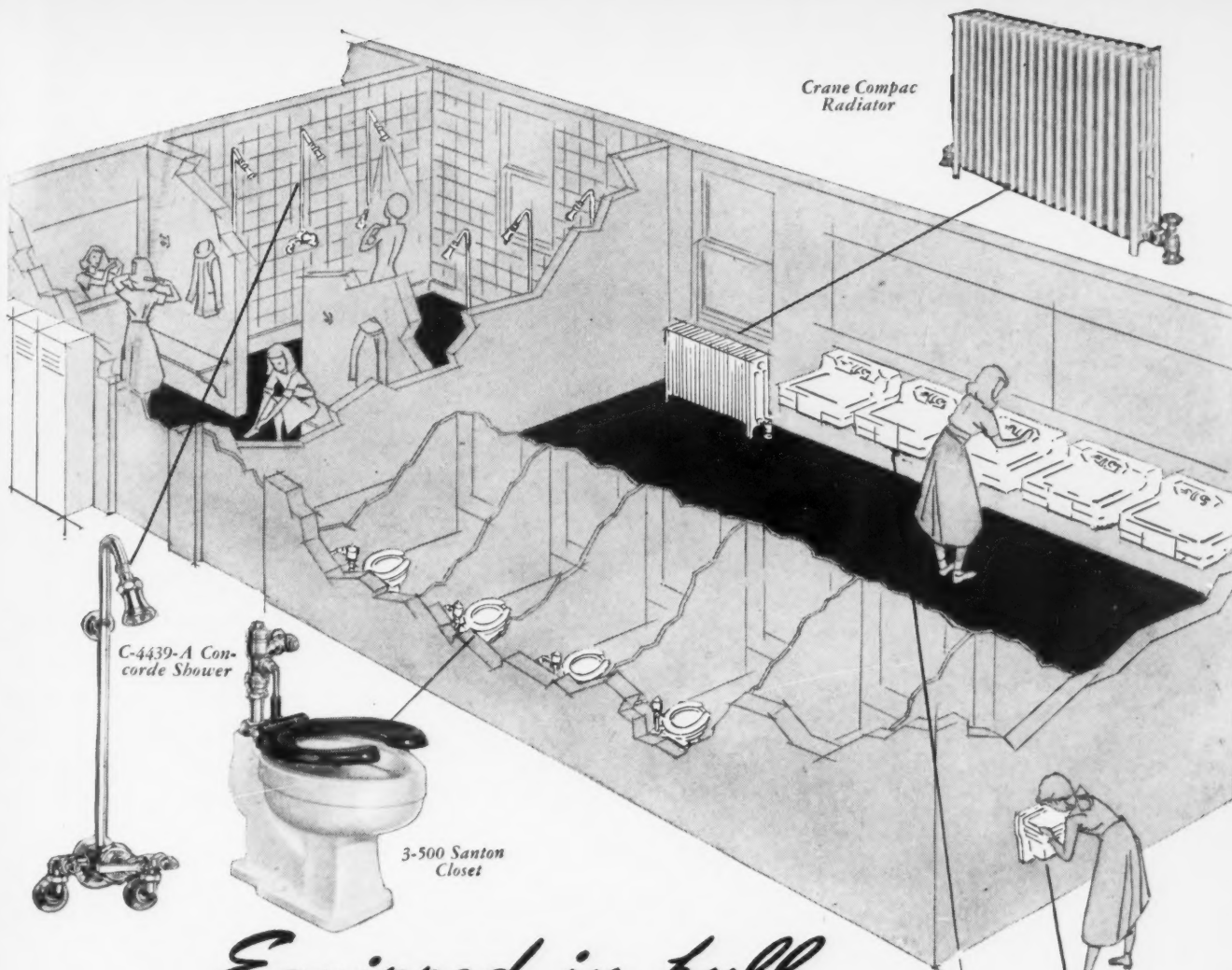
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